

Kentucky Telephone Association



COMMONWEALTH OFFICE
OF BROADBAND OUTREACH
AND DEVELOPMENT
Promoting a 21st century economy

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Mission Statement

To accelerate the expansion of sustainable broadband access and adoption in the Commonwealth by determining the characteristics of broadband availability and use in Kentucky, and promoting the value of broadband to improve the lives of citizens.

Role

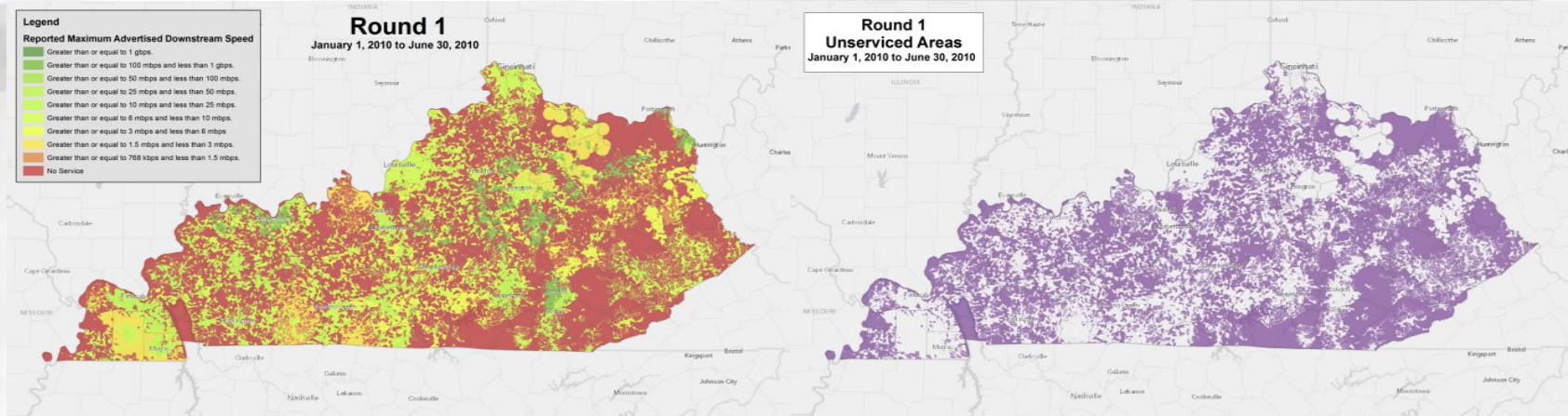
- Broadband advocacy and advisor in Frankfort
- Establish state-wide broadband direction and policy
- Facilitate access to broadband resources



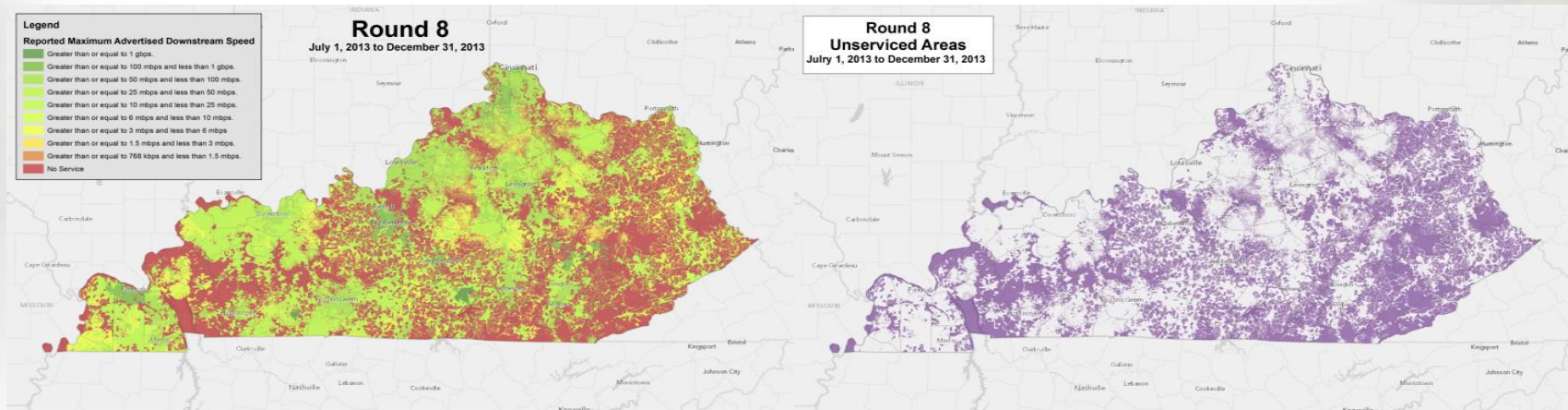
Agenda:

- **Overview of Broadband Progress in Kentucky**
- **Provider Engagement in 2014 – Plan Overview**
- **Commonwealth Regional Broadband Projects -**
 - Project areas
 - Focus of each project
 - Business opportunities
- **The Commonwealth Dark Fiber Project --**
 - Overview of the Governor's Vision
 - Q & A





Broadband Progress in Kentucky – 2010 to 2014



Moving Forward into the 21st Century – Expanding Kentucky's Broadband Infrastructure and Utilization



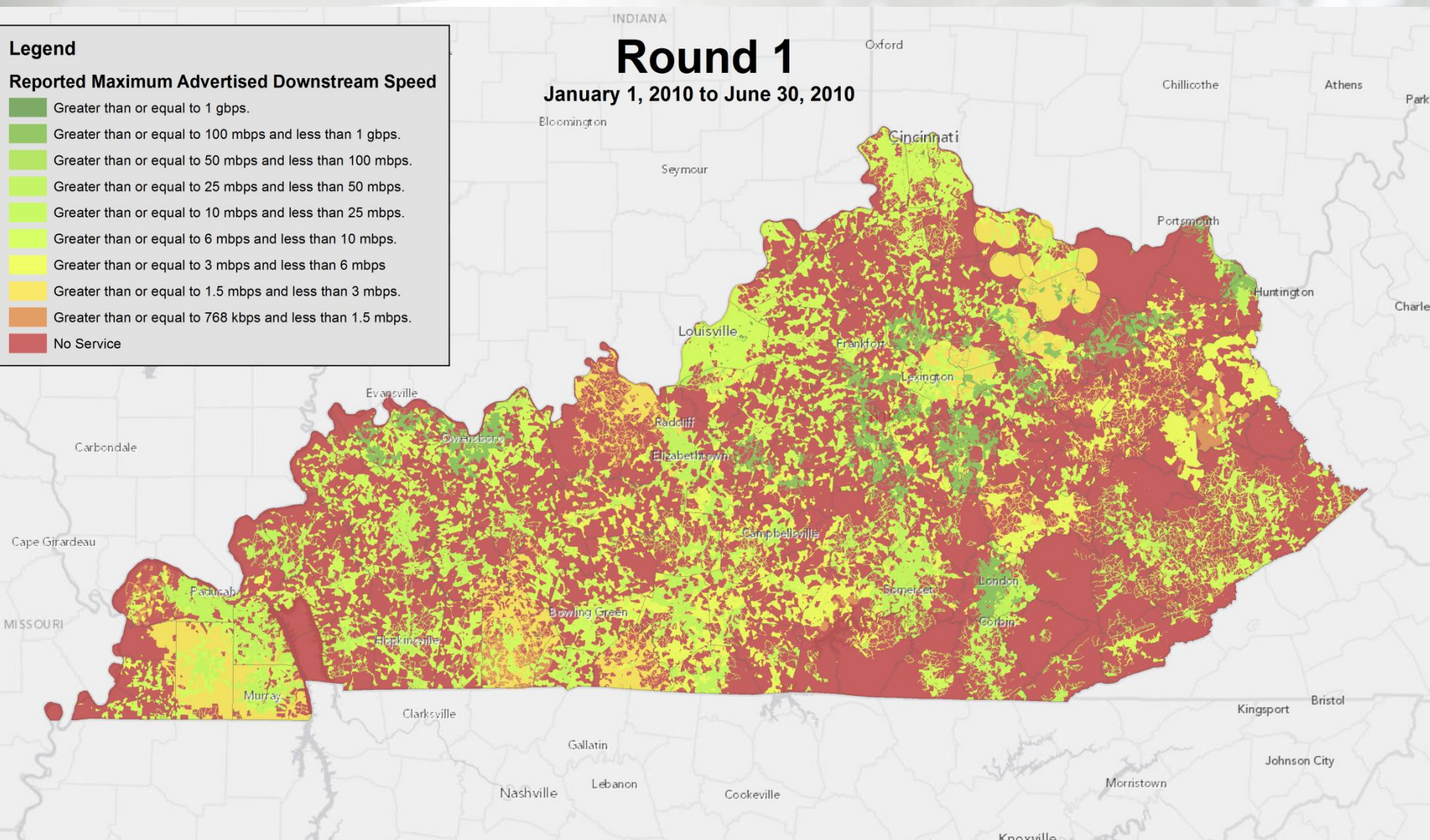
Legend

Reported Maximum Advertised Downstream Speed

- Greater than or equal to 1 gbps.
- Greater than or equal to 100 mbps and less than 1 gbps.
- Greater than or equal to 50 mbps and less than 100 mbps.
- Greater than or equal to 25 mbps and less than 50 mbps.
- Greater than or equal to 10 mbps and less than 25 mbps.
- Greater than or equal to 6 mbps and less than 10 mbps.
- Greater than or equal to 3 mbps and less than 6 mbps.
- Greater than or equal to 1.5 mbps and less than 3 mbps.
- Greater than or equal to 768 kbps and less than 1.5 mbps.
- No Service

Round 1

January 1, 2010 to June 30, 2010





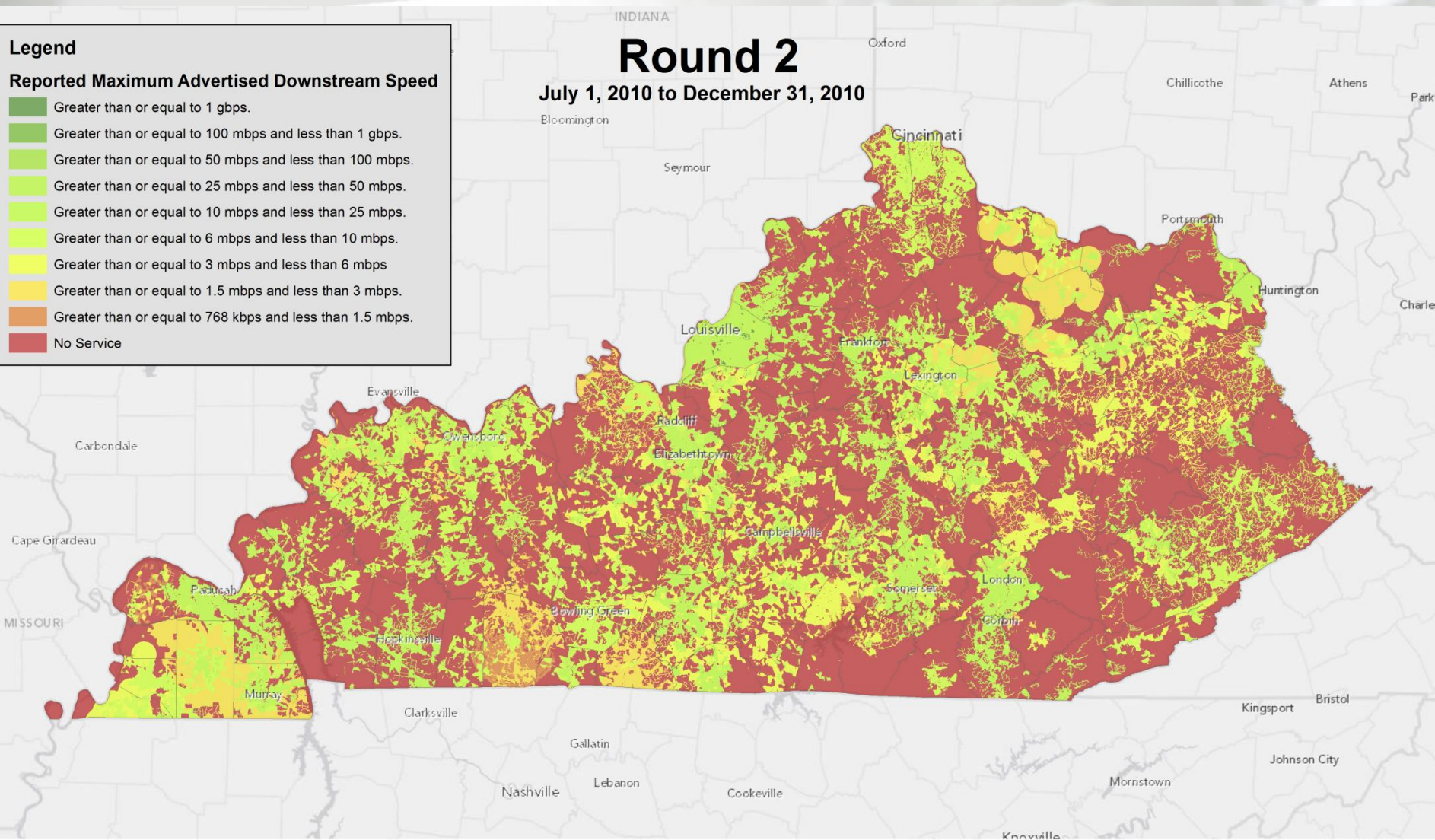
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- Greater than or equal to 768 kbps and less than 1.5 mbps.
- No Service

Round 2

July 1, 2010 to December 31, 2010





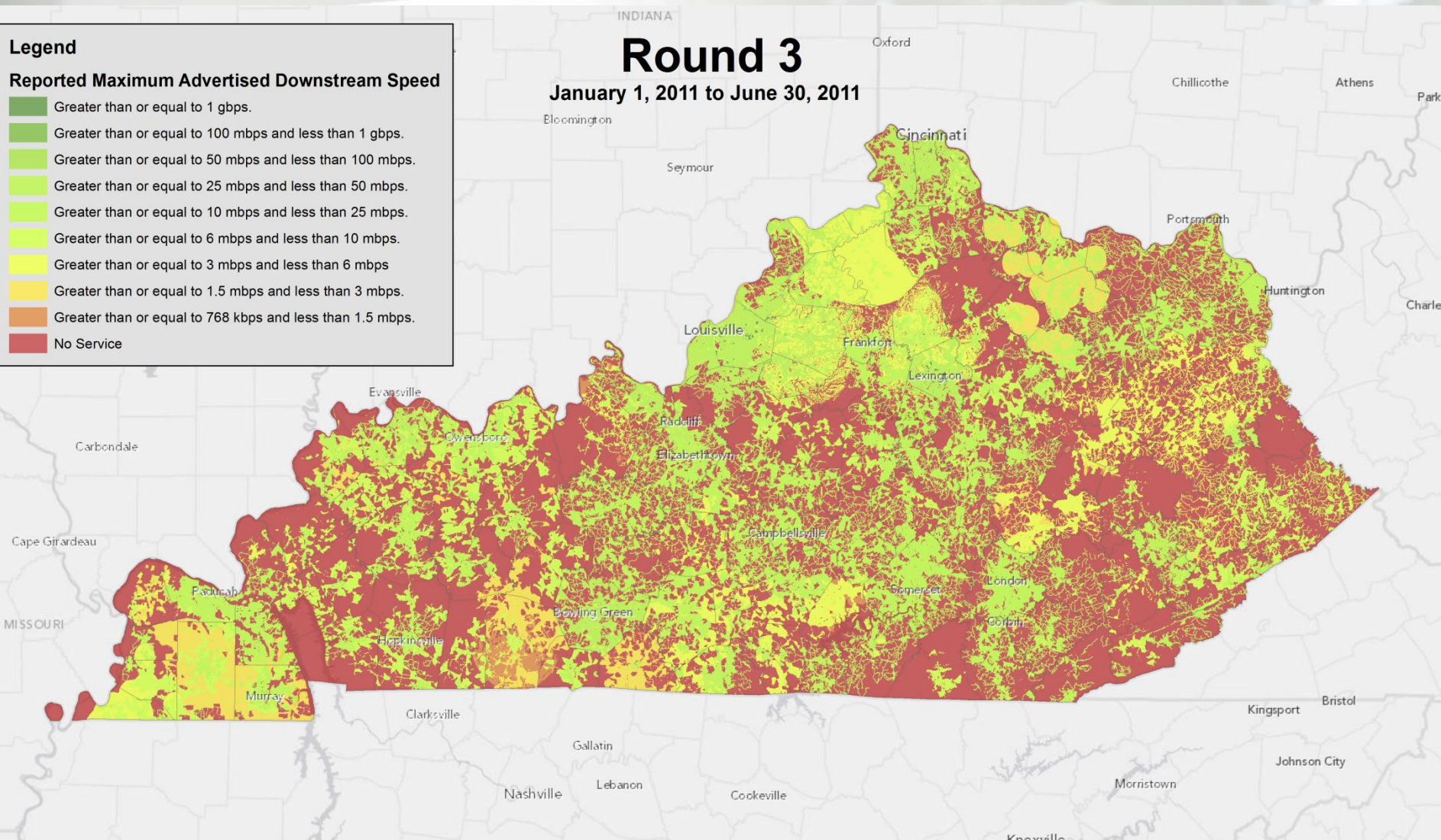
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- Greater than or equal to 6 mbps and less than 10 mbps.
- Greater than or equal to 3 mbps and less than 6 mbps.
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- Greater than or equal to 768 kbps and less than 1.5 mbps.
- No Service

Round 3

January 1, 2011 to June 30, 2011





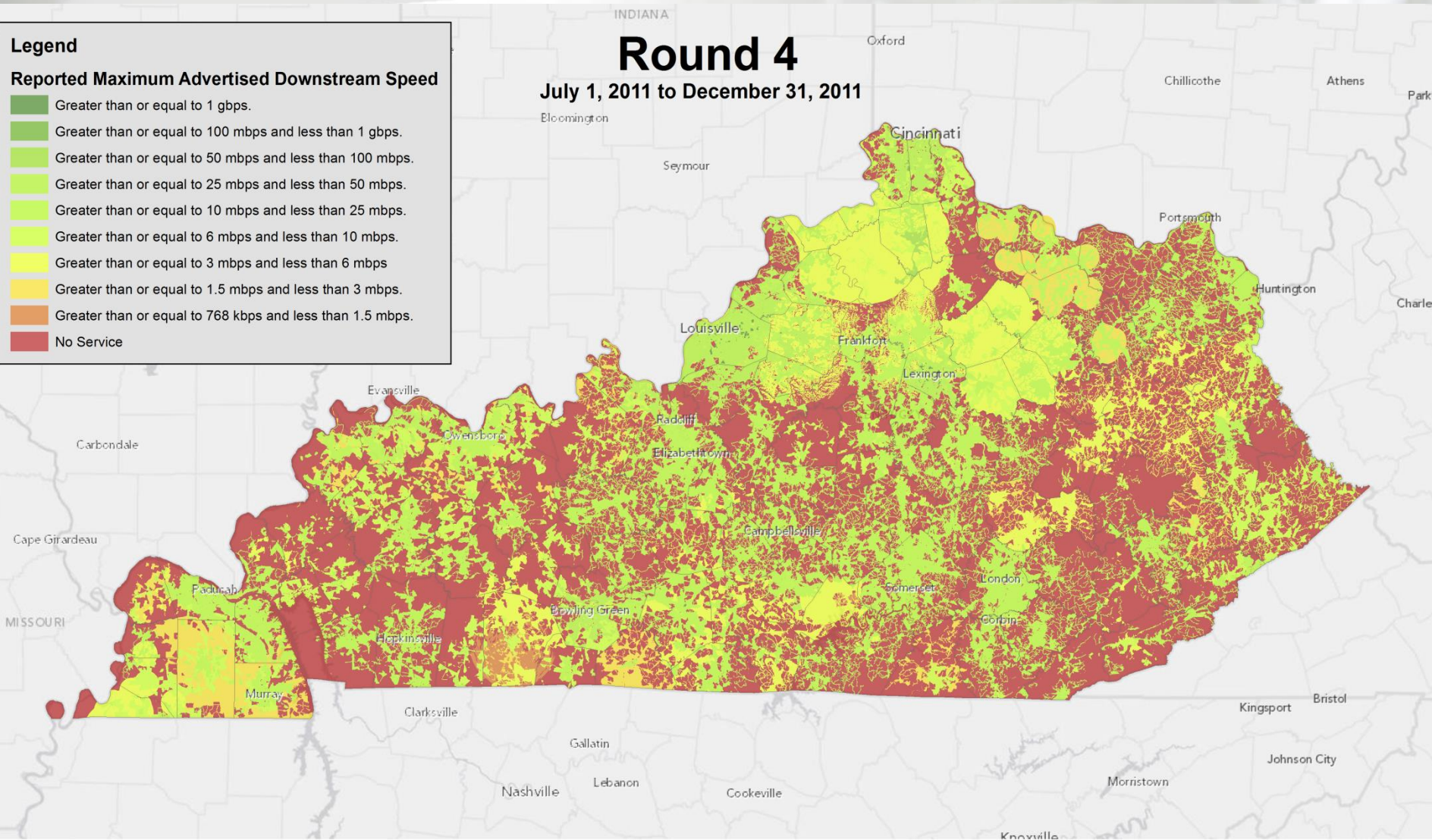
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Round 4

July 1, 2011 to December 31, 2011





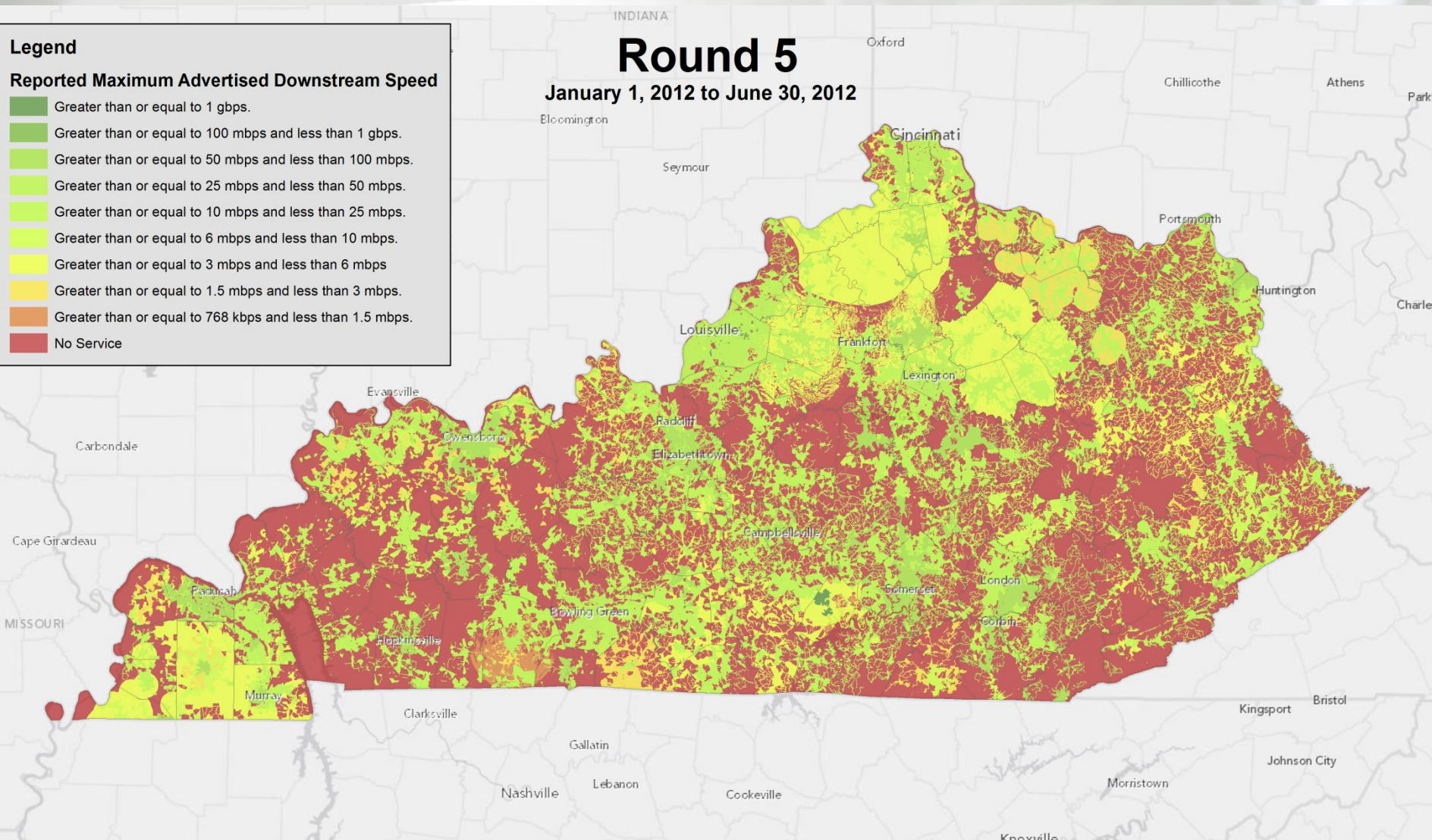
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- No Service

Round 5

January 1, 2012 to June 30, 2012





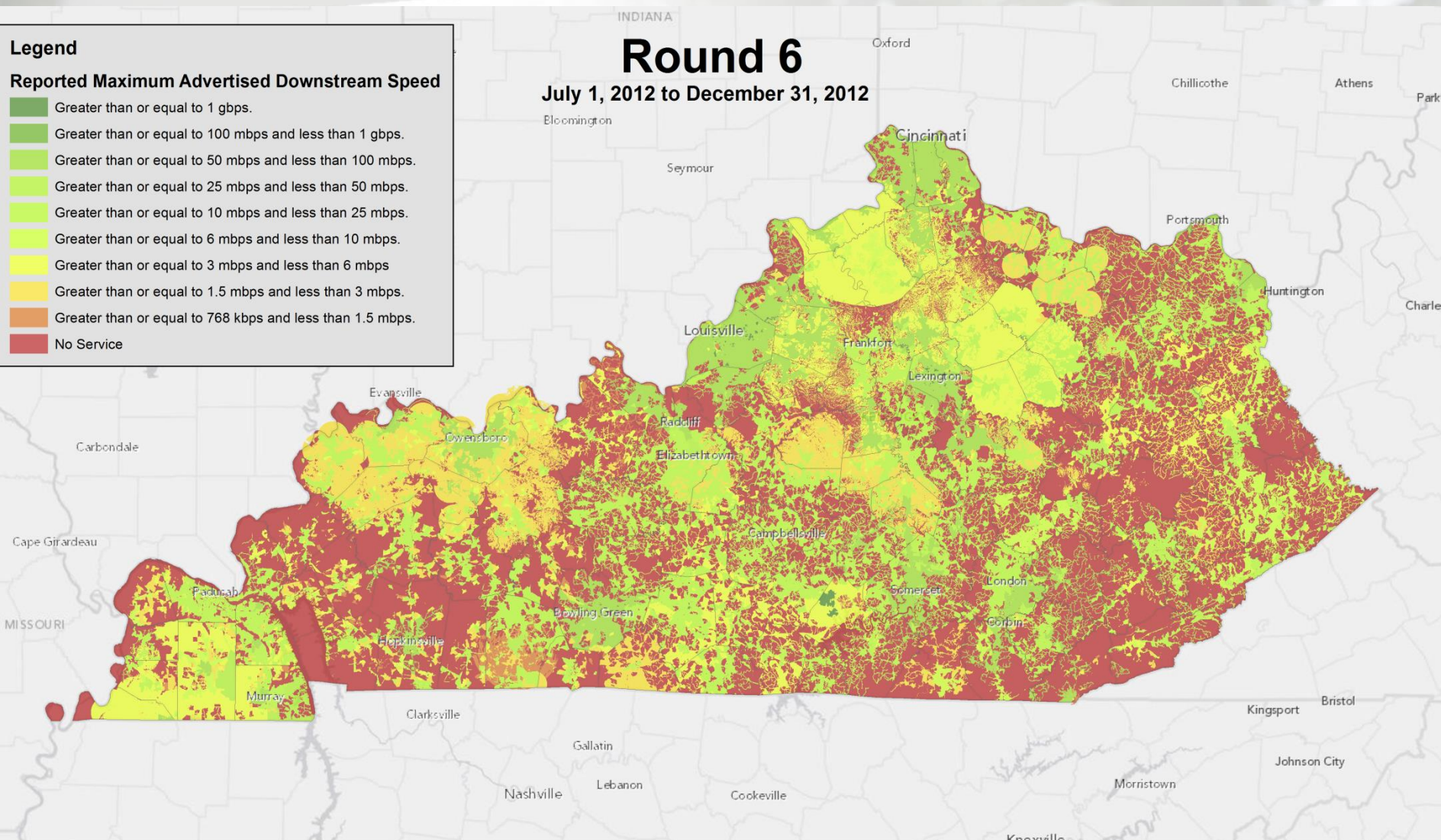
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- No Service

Round 6

July 1, 2012 to December 31, 2012





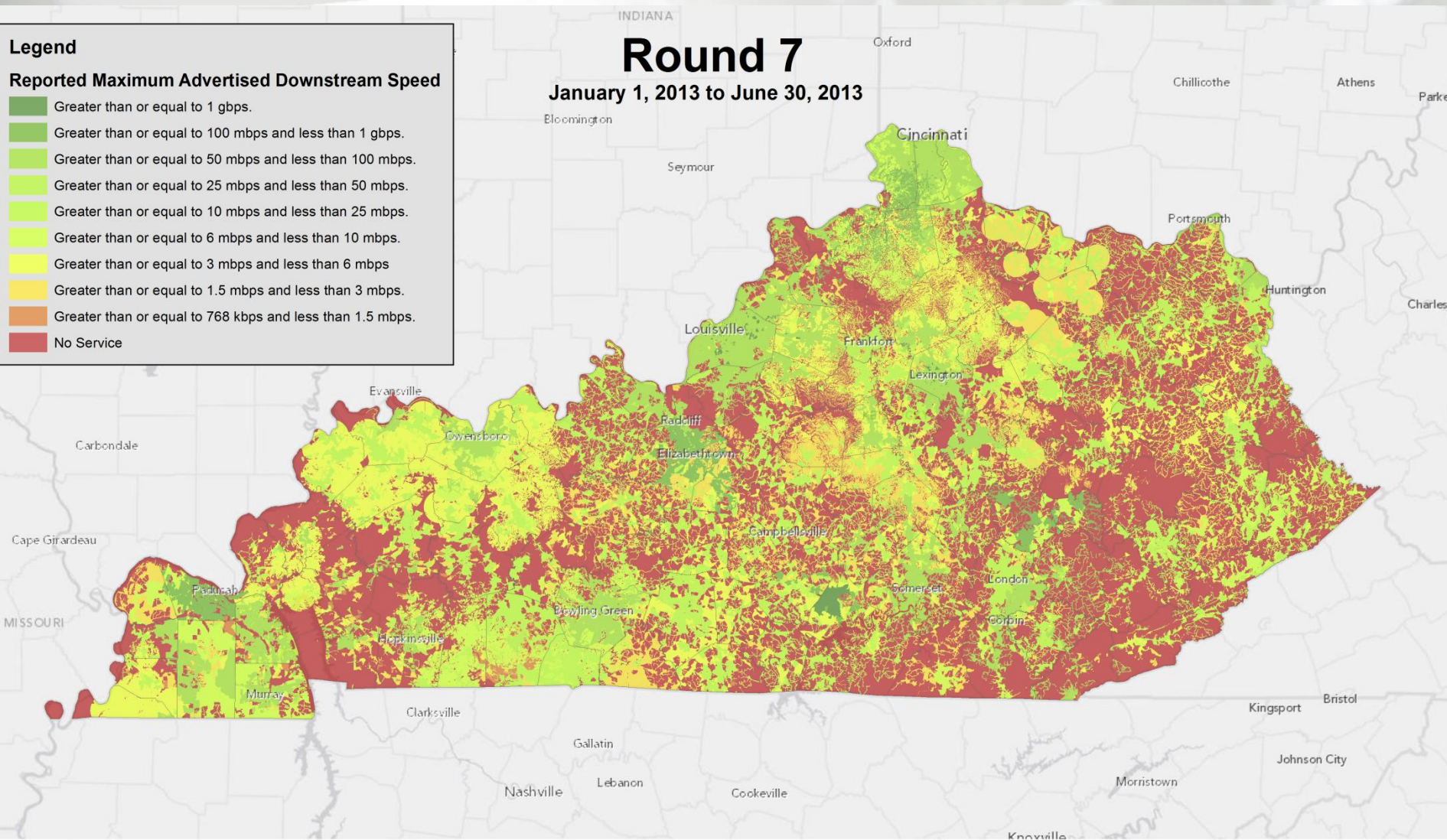
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- Greater than or equal to 6 mbps and less than 10 mbps.
- Greater than or equal to 3 mbps and less than 6 mbps.
- Greater than or equal to 1.5 mbps and less than 3 mbps.
- Greater than or equal to 768 kbps and less than 1.5 mbps.
- No Service

Round 7

January 1, 2013 to June 30, 2013





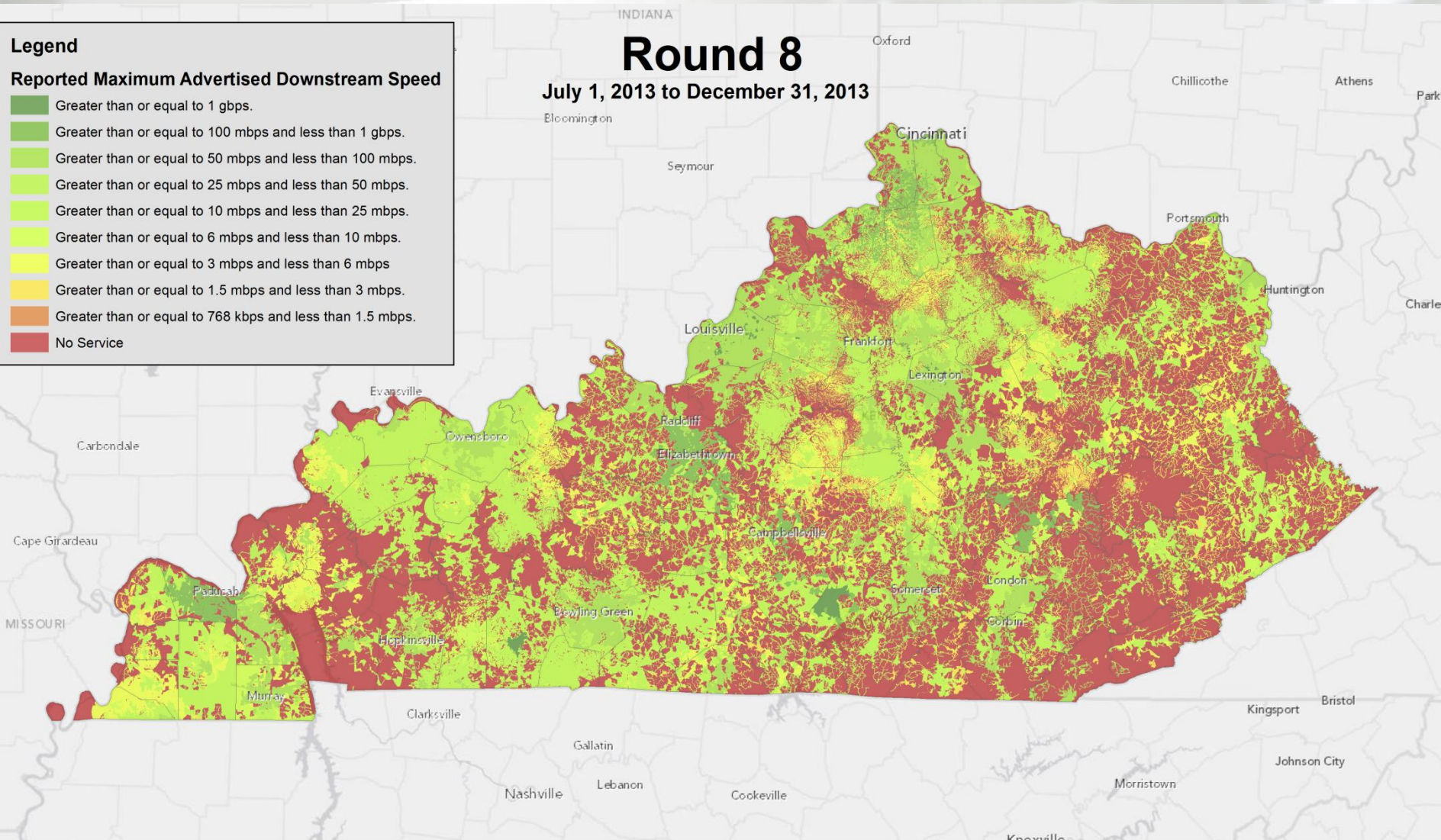
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- No Service

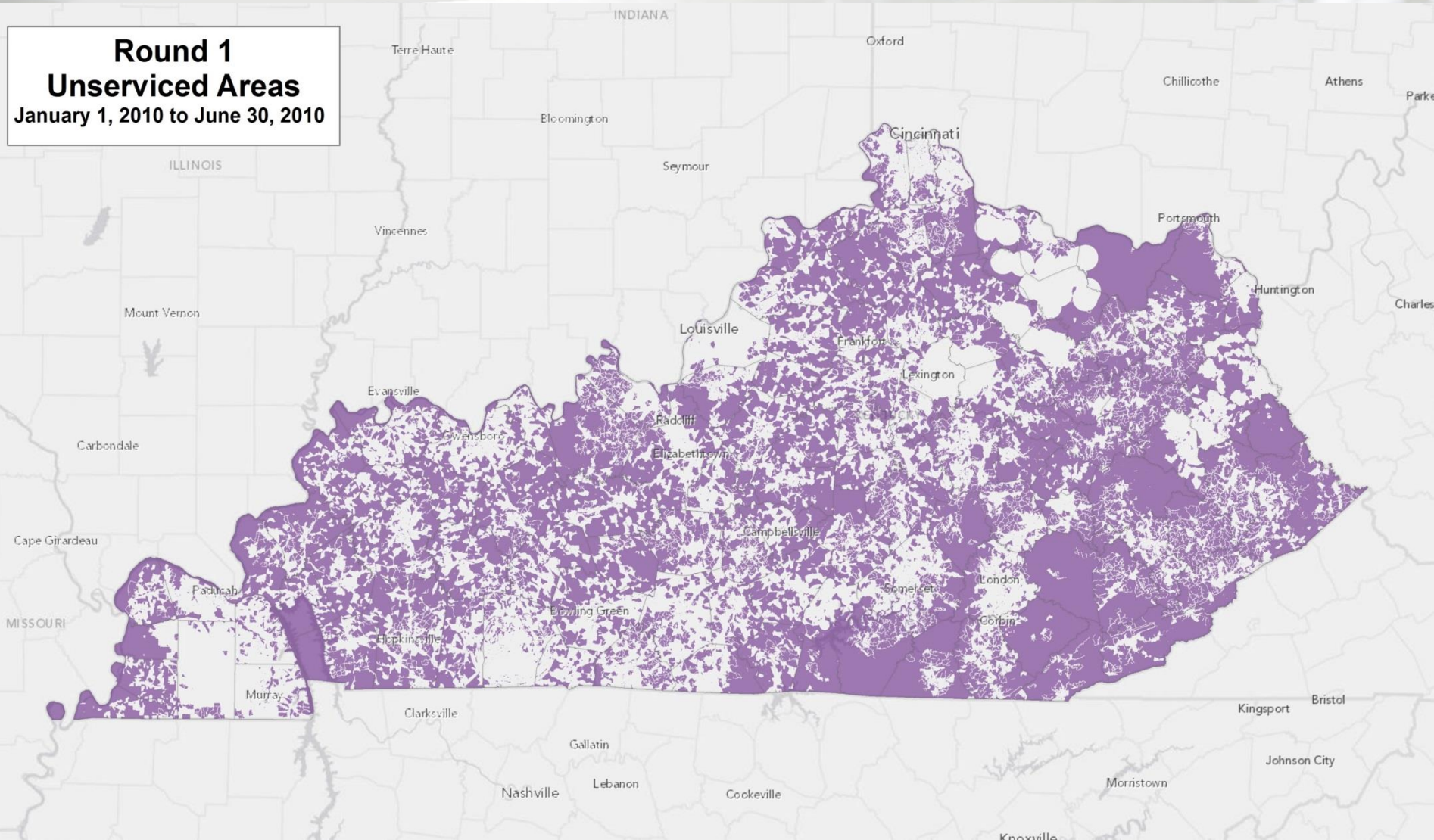
Round 8

July 1, 2013 to December 31, 2013





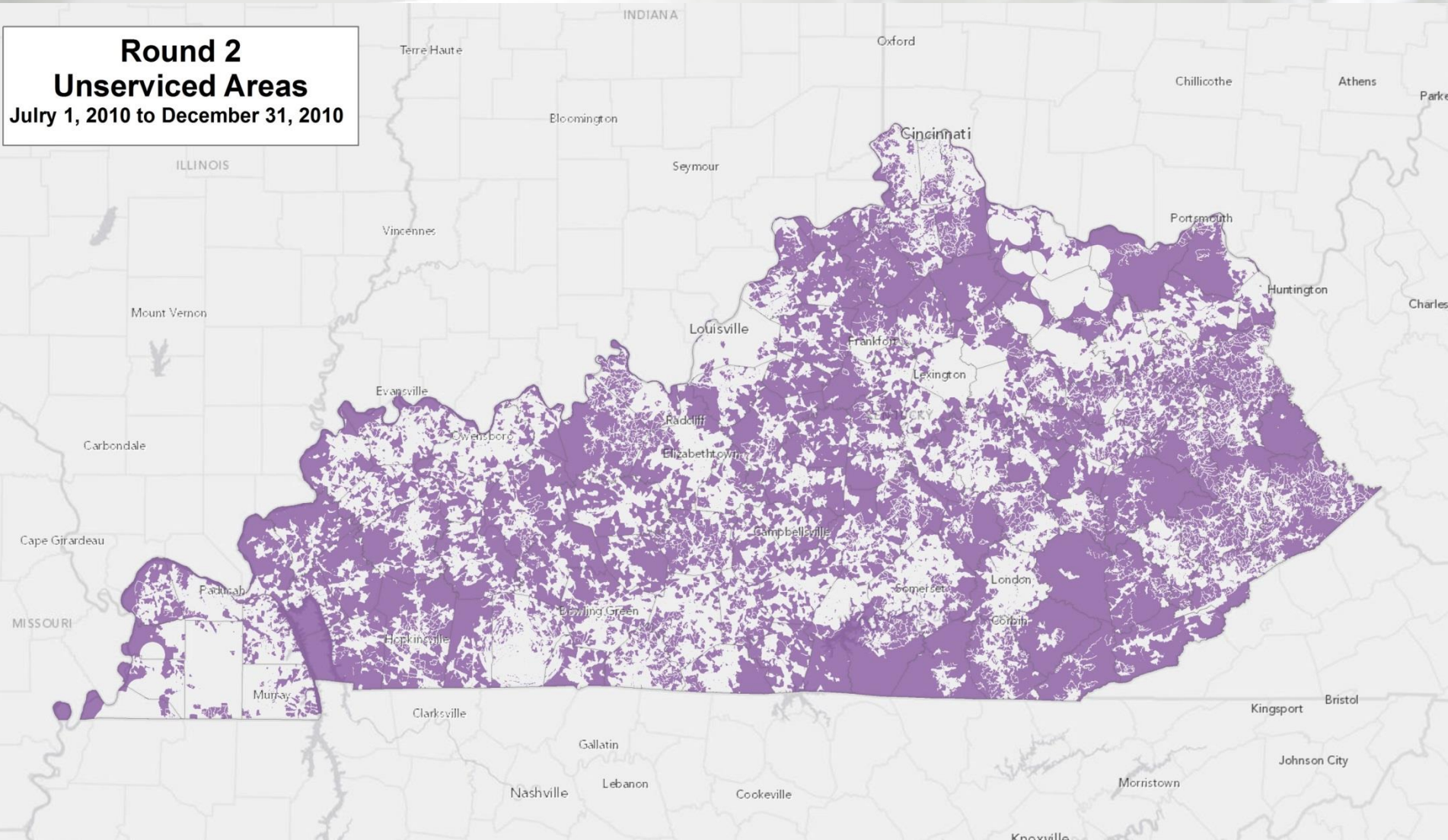
**Round 1
Unserviced Areas**
January 1, 2010 to June 30, 2010





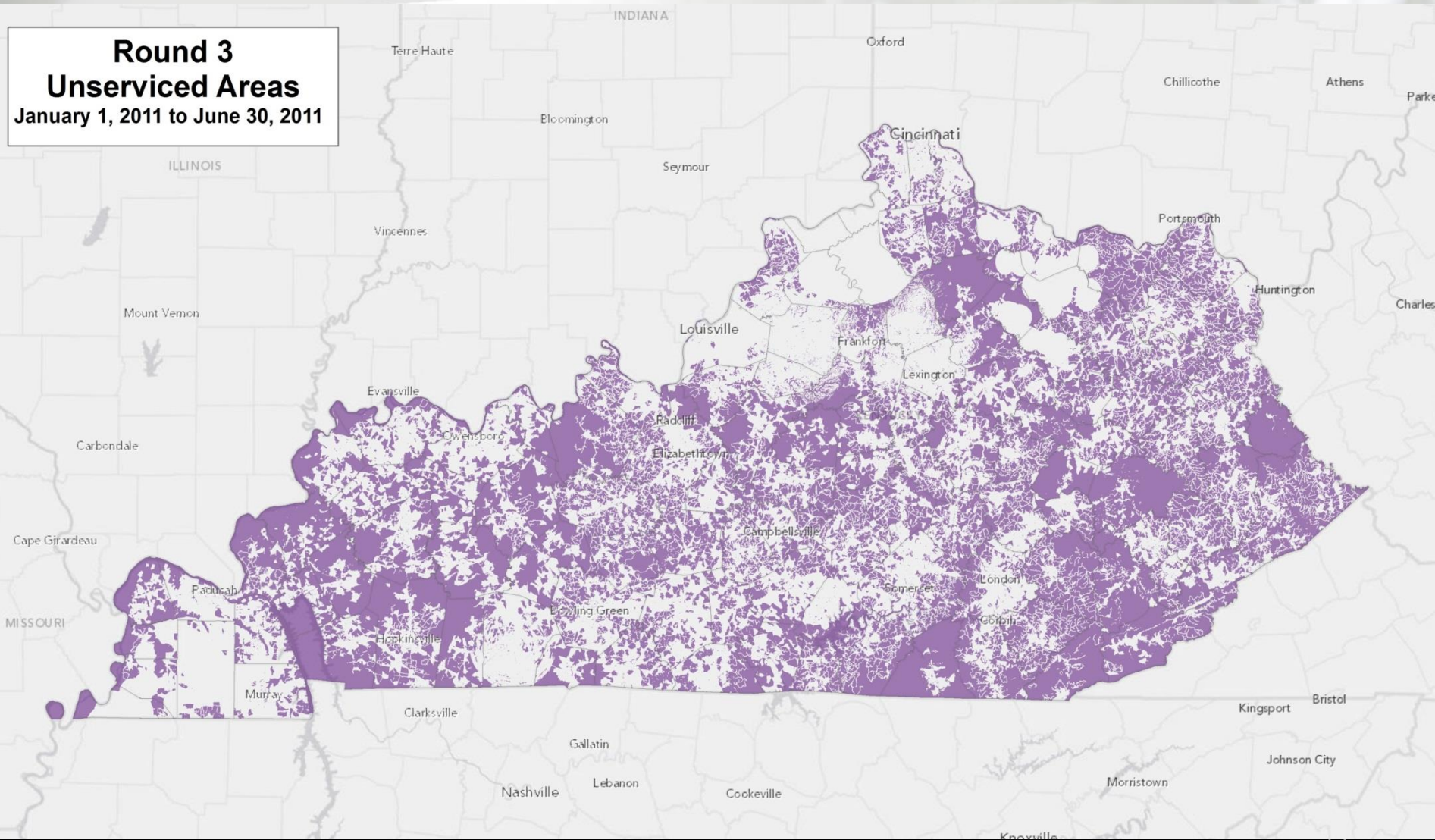
Round 2 Unserviced Areas

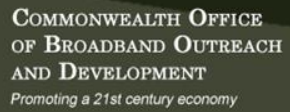
July 1, 2010 to December 31, 2010



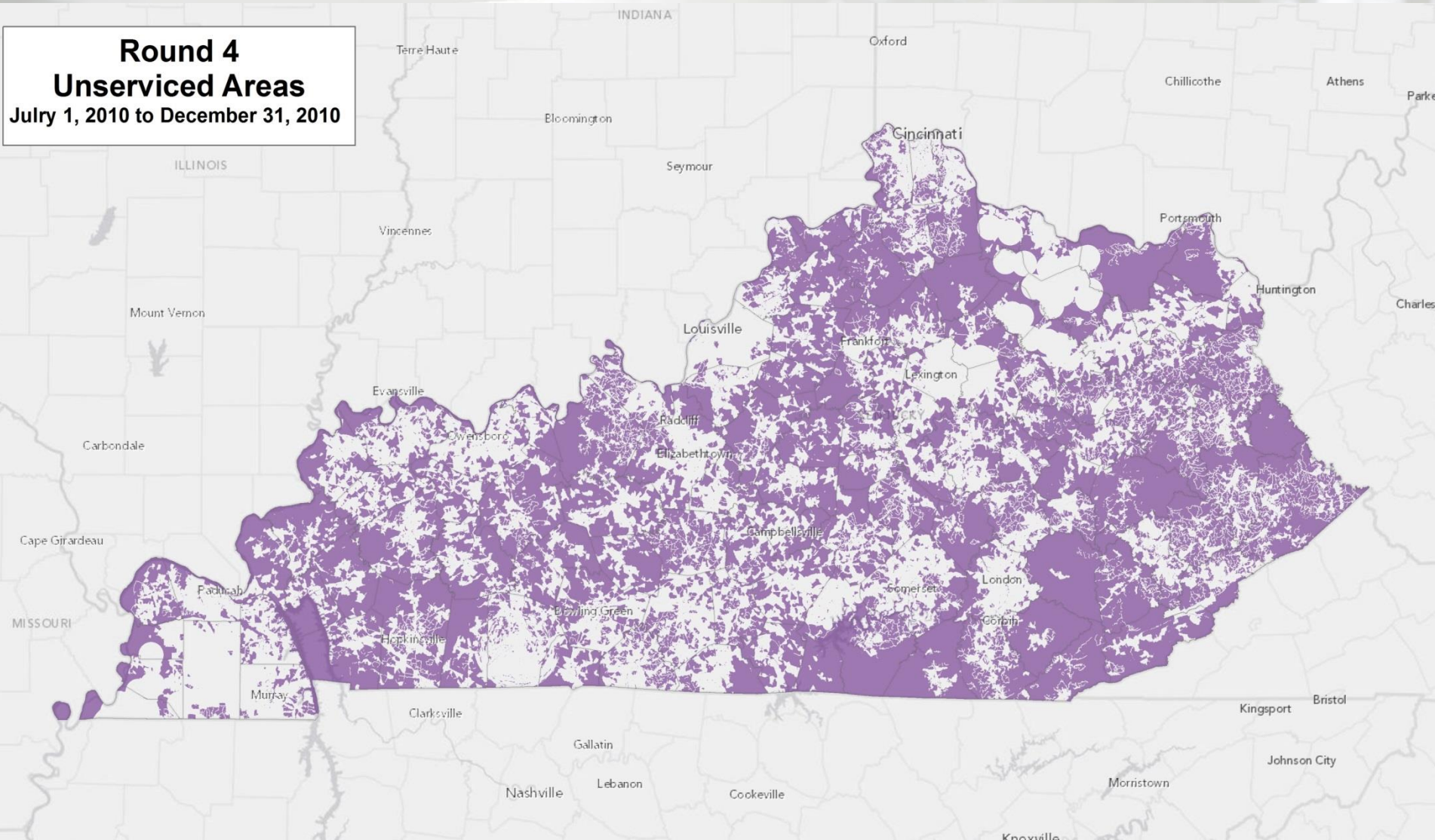


**Round 3
Unserviced Areas**
January 1, 2011 to June 30, 2011



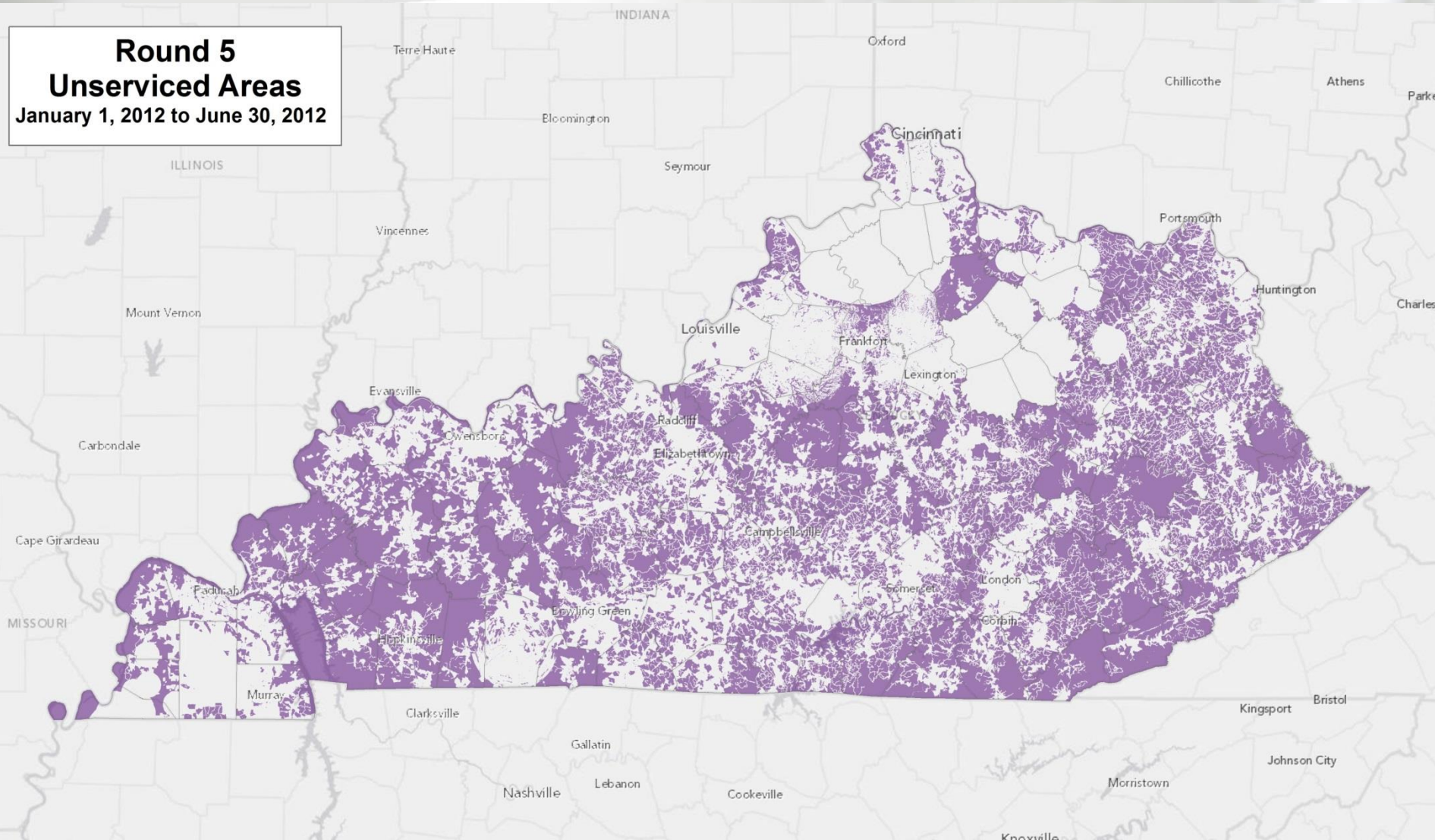


July 1, 2010 to December 31, 2010





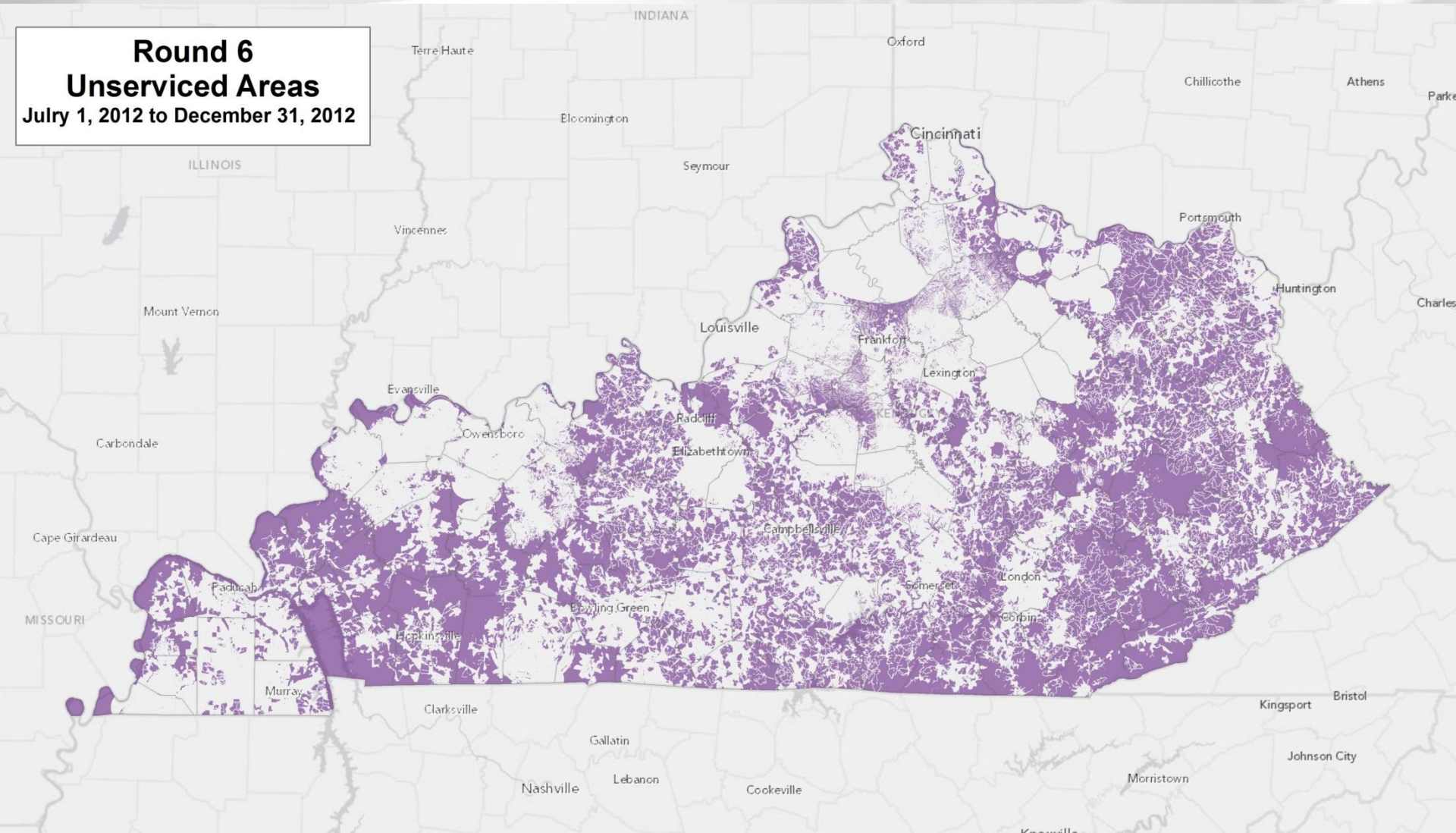
**Round 5
Unserviced Areas**
January 1, 2012 to June 30, 2012





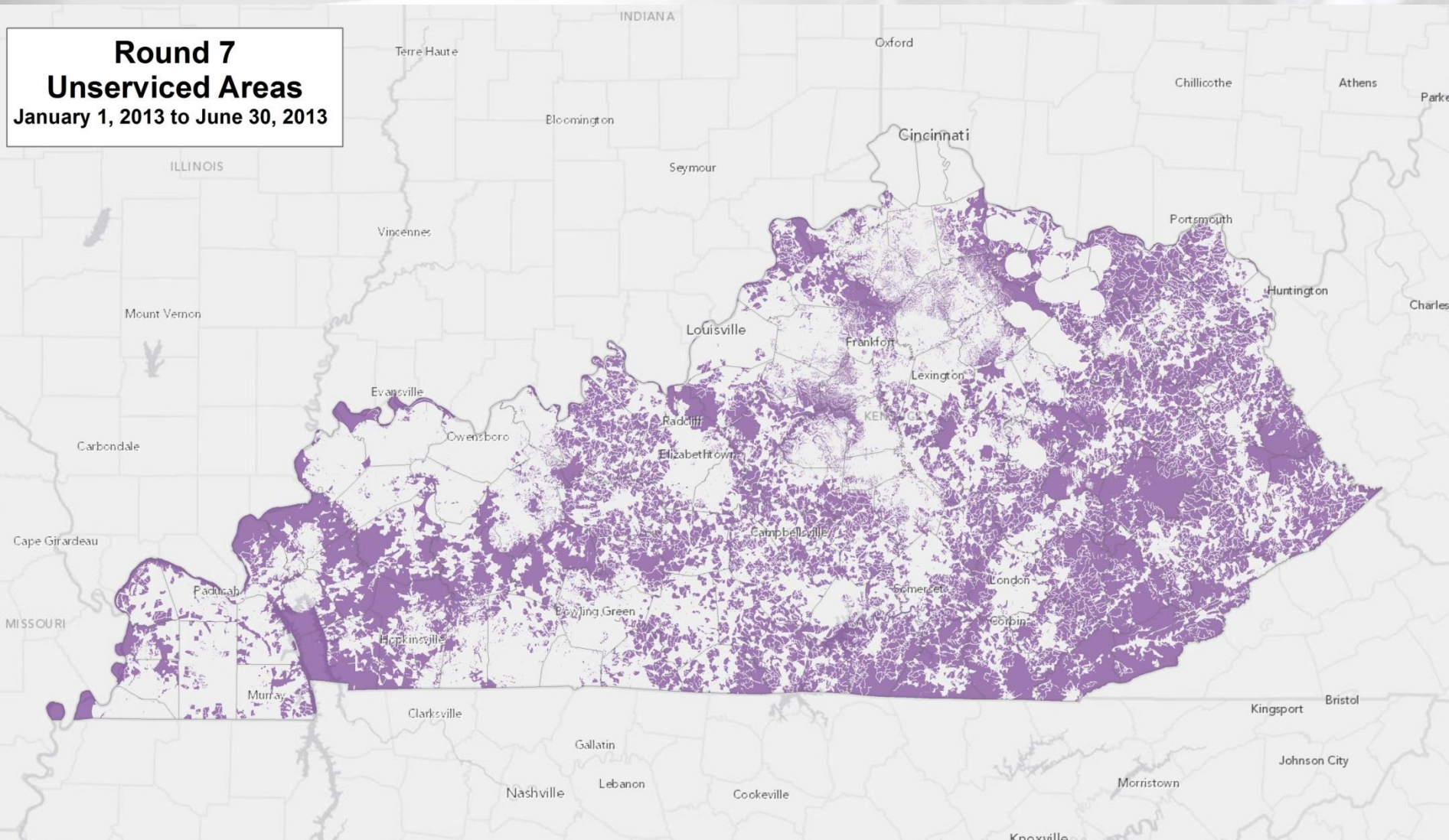
Round 6 Unserviced Areas

July 1, 2012 to December 31, 2012



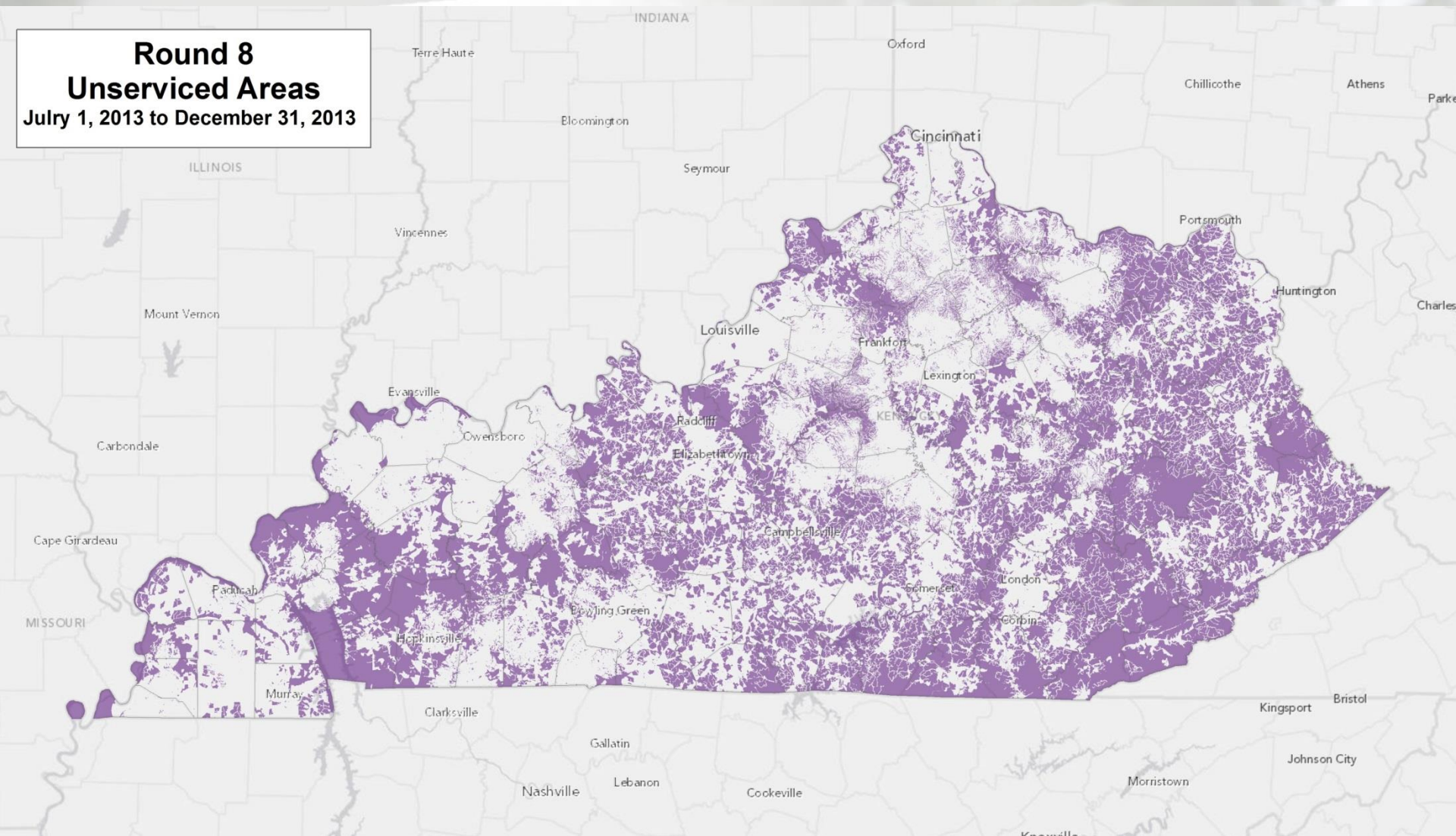


Round 7
Unserviced Areas
January 1, 2013 to June 30, 2013





Round 8
Unserviced Areas
July 1, 2013 to December 31, 2013





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Moving Forward into the 21st Century – Expanding Kentucky’s Broadband Infrastructure and Utilization



Reported MADS

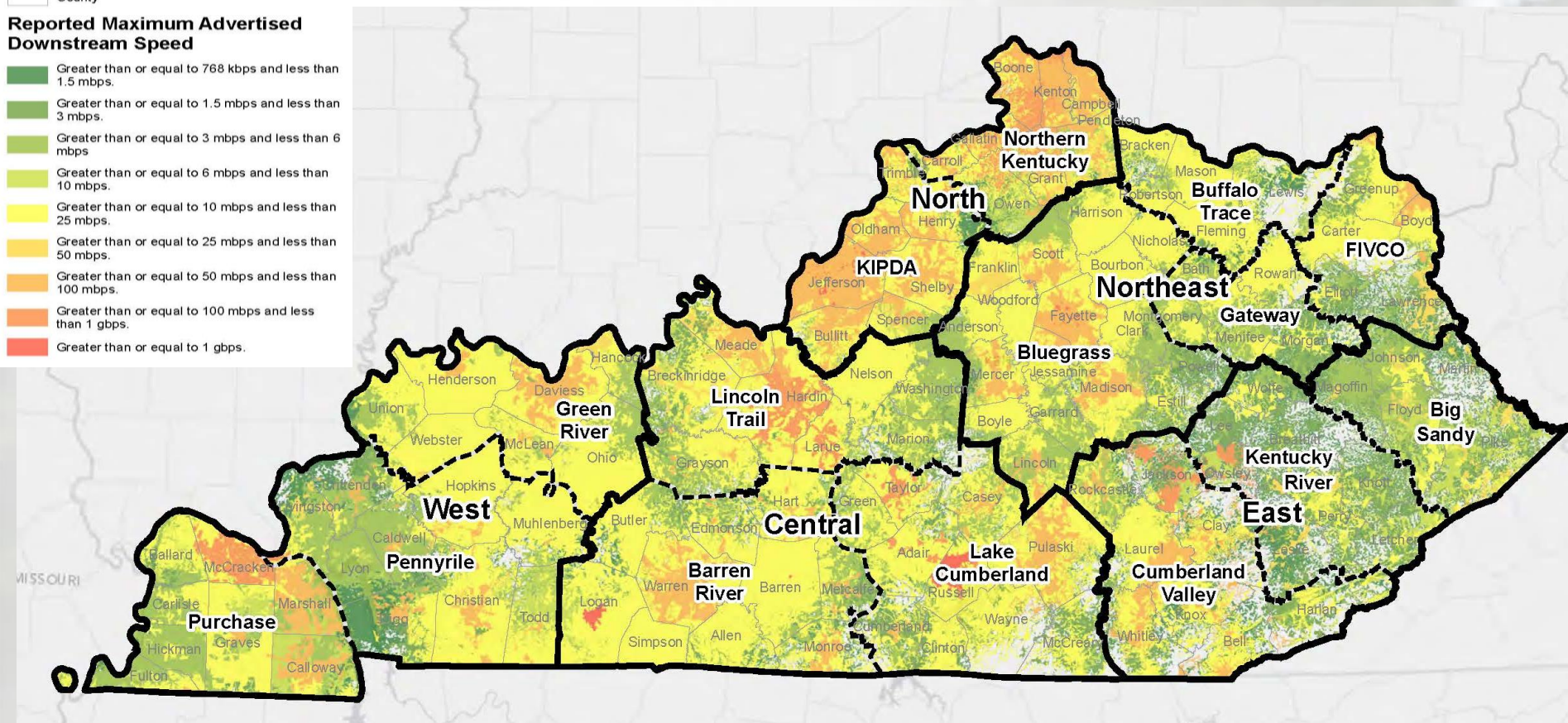
Legend

Boundaries

- Planning Region
- ADD
- County

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- Greater than or equal to 1 gbps.

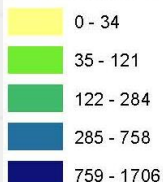




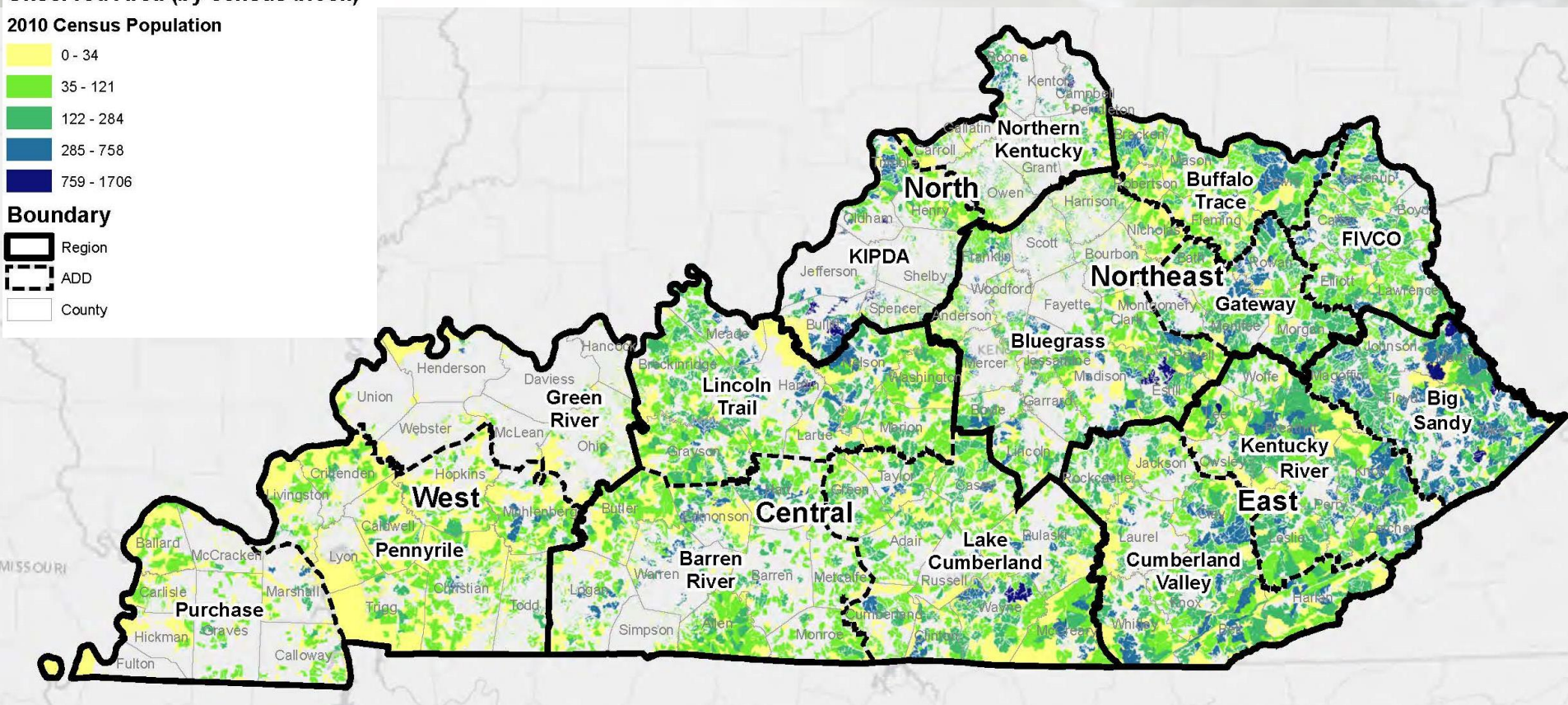
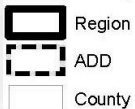
Legend

Unserved Area (by census block)

2010 Census Population



Boundary



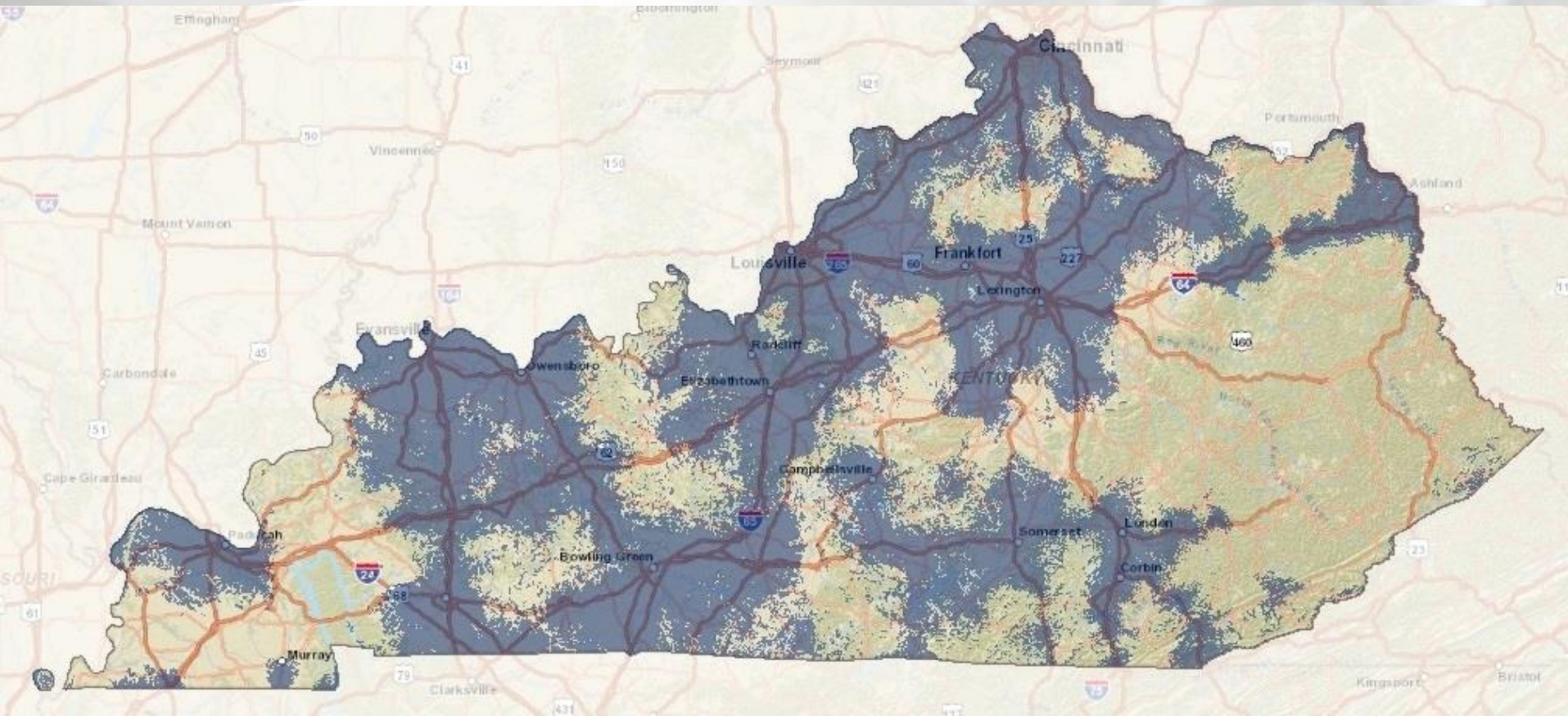
**Areas below 3 Mbps when Excluding Satellite or Mobile Wireless,
or with -0- Broadband Coverage**



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Kentucky LTE Coverage

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Area: 20,155 Sq Miles
KY Coverage: 49.88%

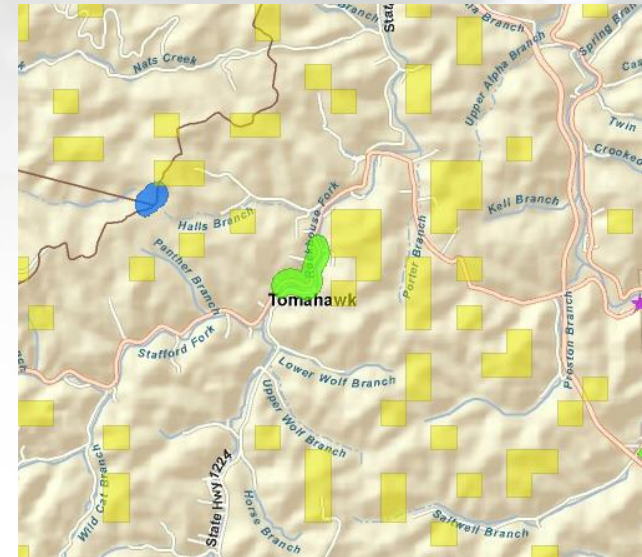


Business Utilization –

4 Industries with Low Broadband Use in KY:

1. Public Administration (47%),
2. Accommodation and Food Services (57%)
3. Administrative and Support Services (57%)
4. Health Care and Social Assistance (58%)

Improvement in online government content helps citizens and drives demand!



Citizen Utilization –

91.5% of Kentucky Population has Access to Broadband;
But a much lower number of Kentucky Citizens subscribe to Service:
Promoting the value of broadband to citizens will contribute to improved adoption, utilization and demand for broadband service



Provider Engagement in the Commonwealth – Overview of 2014 Plans --



- I. Work toward improving adoption rates and utilization
- II. Improve trends in the growth of broadband adoption
- III. Reduce the number of citizens that currently see no value in broadband
- IV. Work toward improving content provision
- V. ***Promote “Customer Demand” as a key benefit and encouragement for infrastructure providers to extend “Farther, Faster”***



Provider Engagement in 2014

- Leverage the information gathered over the past four years:
 - ✓ SBI Mapping Data
 - ✓ Survey Data *(Business & Consumer)*
 - ✓ Regional Broadband Projects *(in progress)*
 - ✓ Statewide Information
 - ✓ Tending and Analysis
- Work with you to exchange information helpful to your business:
 - ✓ Information useful for expanding service
 - ✓ Ongoing communication -- meetings, webinars, one-on-one calls
 - ✓ Statewide and Regional Project Updates
 - ✓ Provider access to project leadership
 - ✓ Gathering your input and communicating feedback in Frankfort



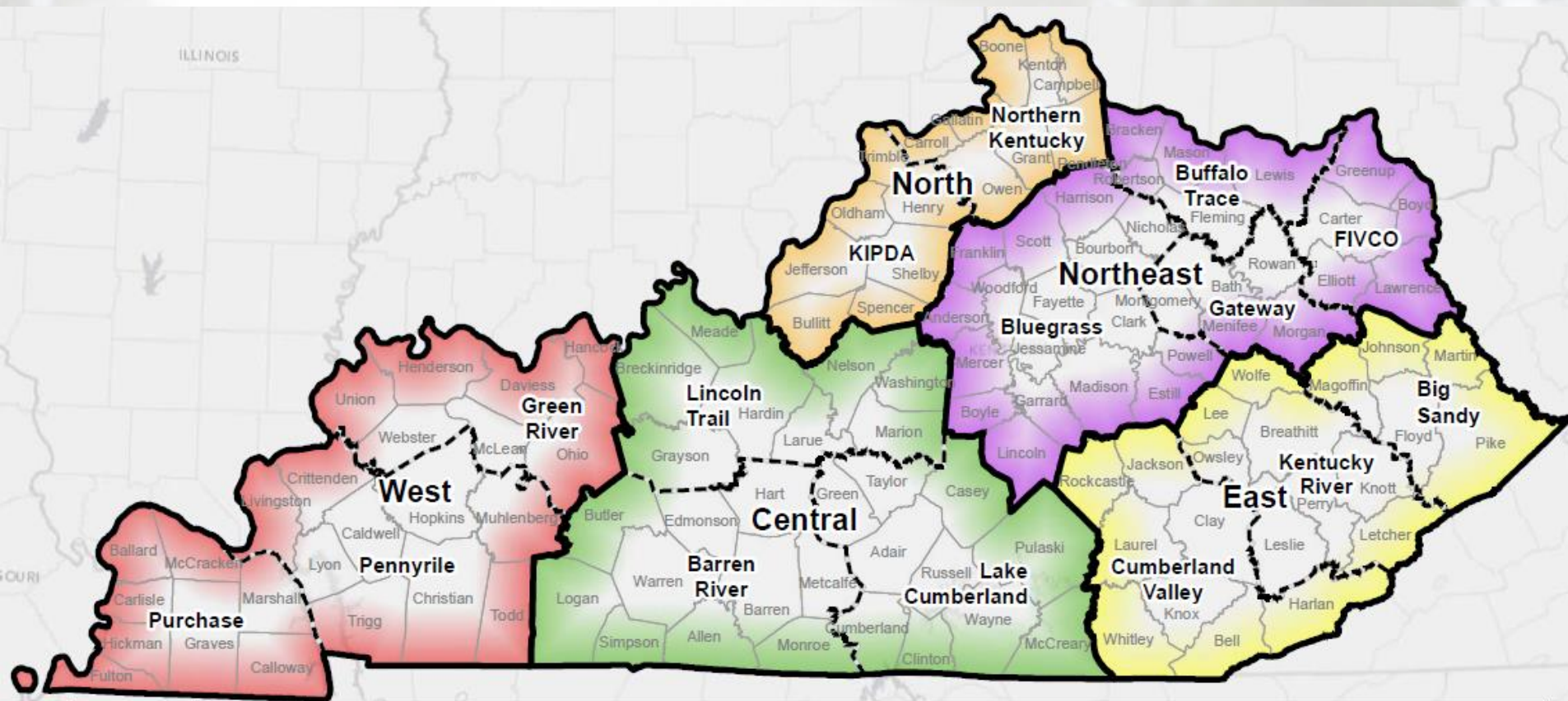
The Commonwealth's Regional Broadband Projects:

- **Project areas**
- **Project focus**
- **Business opportunities**



Where We Started: Broadband Planning Regions

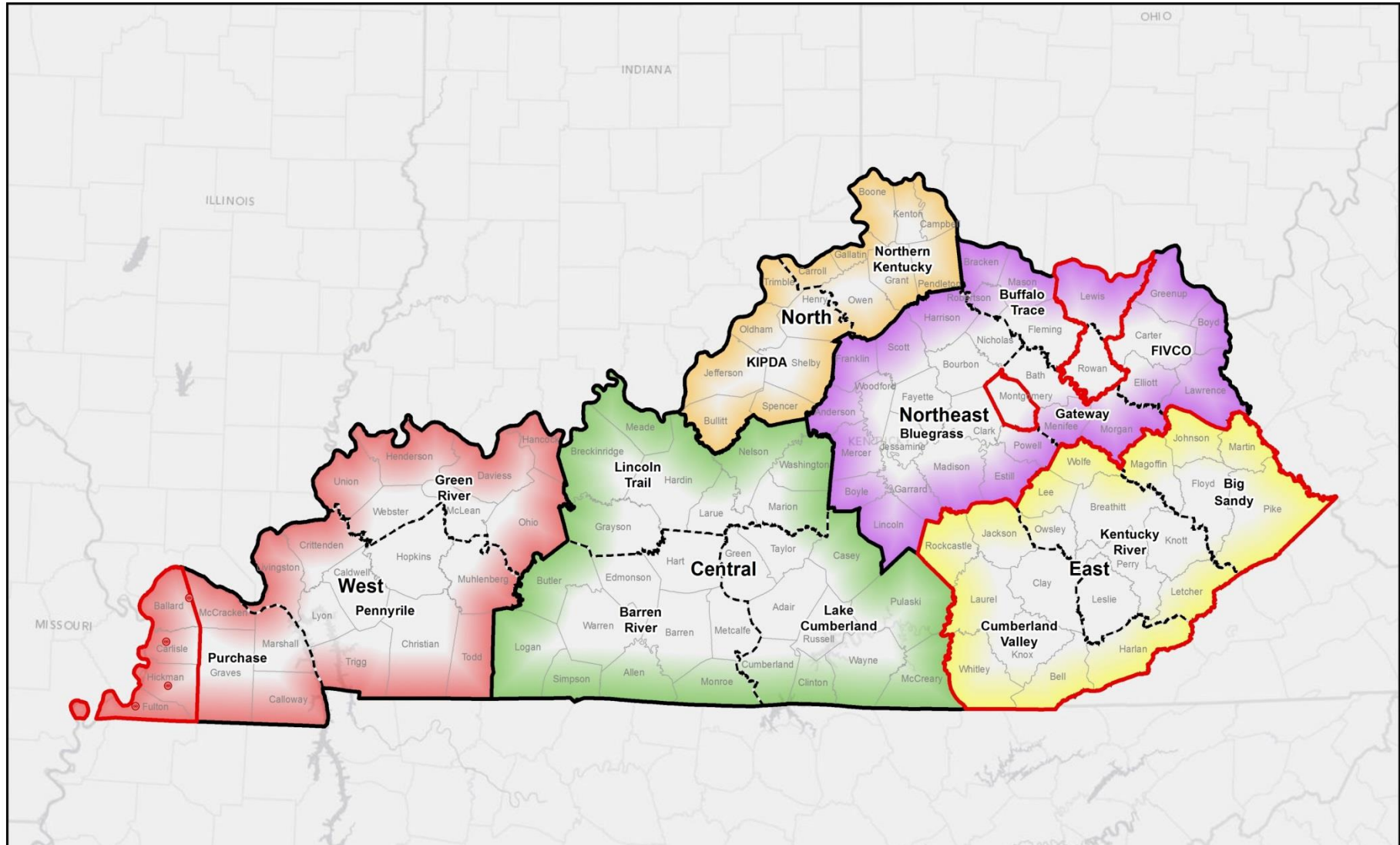
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OBOD Regional Projects

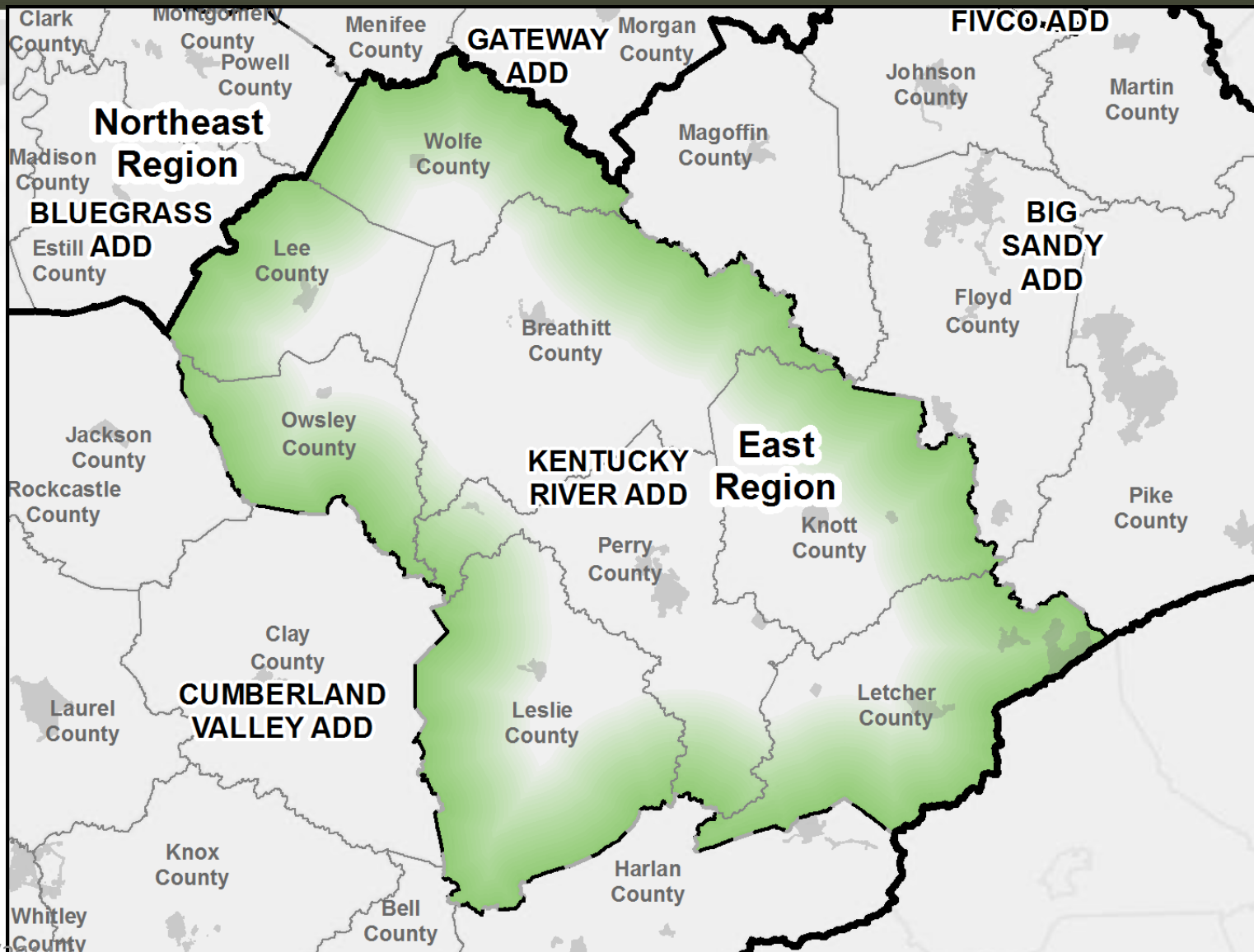
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East Region

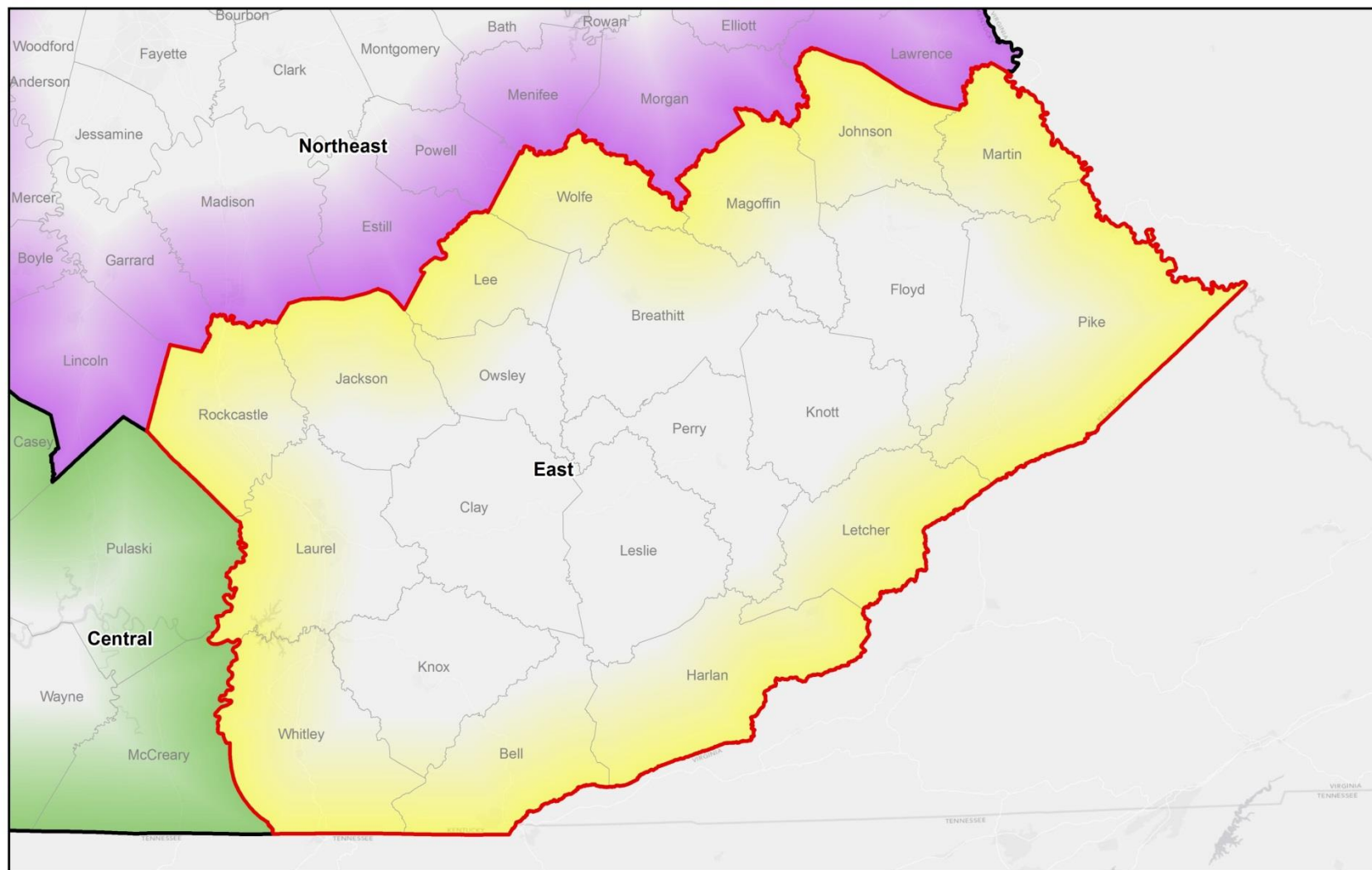
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East Region Project Area

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Promoting E-Governance and Website Improvements

Eastern Kentucky University's Initiative



EASTERN KENTUCKY
UNIVERSITY



Project Goals

City / County Government Website Improvement and utilization of Broadband --

- Building regional leadership capacity
- Promoting of e-government services:
 - Online Bill Payment
 - Community Communication
 - Property Databases for Communities
- Improvement of local government websites to showcase community assets



Project Focus

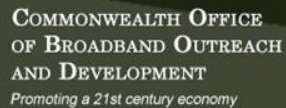
Users --

- City and County Government
- Utility Districts
- Area Development Districts
- Employment Programs
- Economic Development Officials



Potential for Broadband Expansion

- More local government transactions online improves citizen access -- community demand will help to drive greater broadband service
- Better government website capability helps local government realize the broadband value
- Strong institutional web presence in communities attracts new residents and visitors -- driving demand for access to broadband services



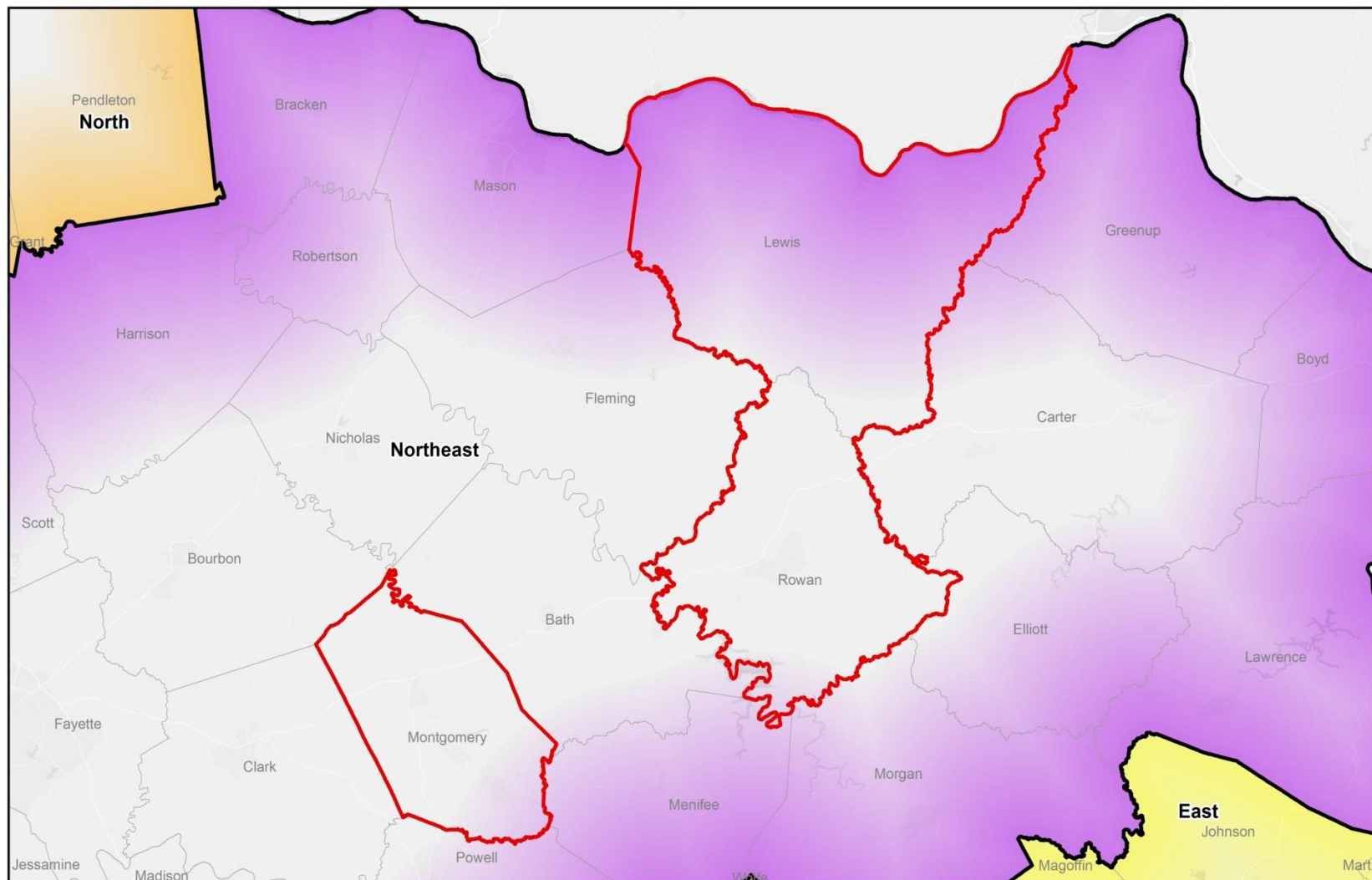
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Northeast Project Area

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Digital Leadership Project

Morehead State University &
Kentucky Innovation Network

Digital Leadership Project | Who are we?

MSU students majoring in areas of tech; **Computer Science, Space Science, Engineering, Communication, Graphic Design.**

Working under the guidance of the MSU Center for Regional Engagement and the Kentucky Innovation Network, our goal is to help grow the digital economy, strengthen the IT sector in the private economy, and help communities expand broadband adoption by focusing on the business community most likely to make that possible.

Digital Leadership Project | What do we offer?

Services :

- » Application Development
- » Web Site Development
- » *E*-Commerce
- » Graphic Design
- » Coding
- » Software Development
- » Education in all the above

Digital Leadership Project | Why us?

Our team is **driven** and **interested** in helping businesses grow through improved broadband utilization. They use the skills they have learned to take businesses and community organizations to the next level.

Our leadership is heavily invested in the local community – we understand the business climate.

Together, we help companies and communities navigate the world of technology!

Digital Leadership Project

Contact Info:

Morehead State University:

Vicci Lewis, 606-783-9536

KY Innovation Network @ MSU:

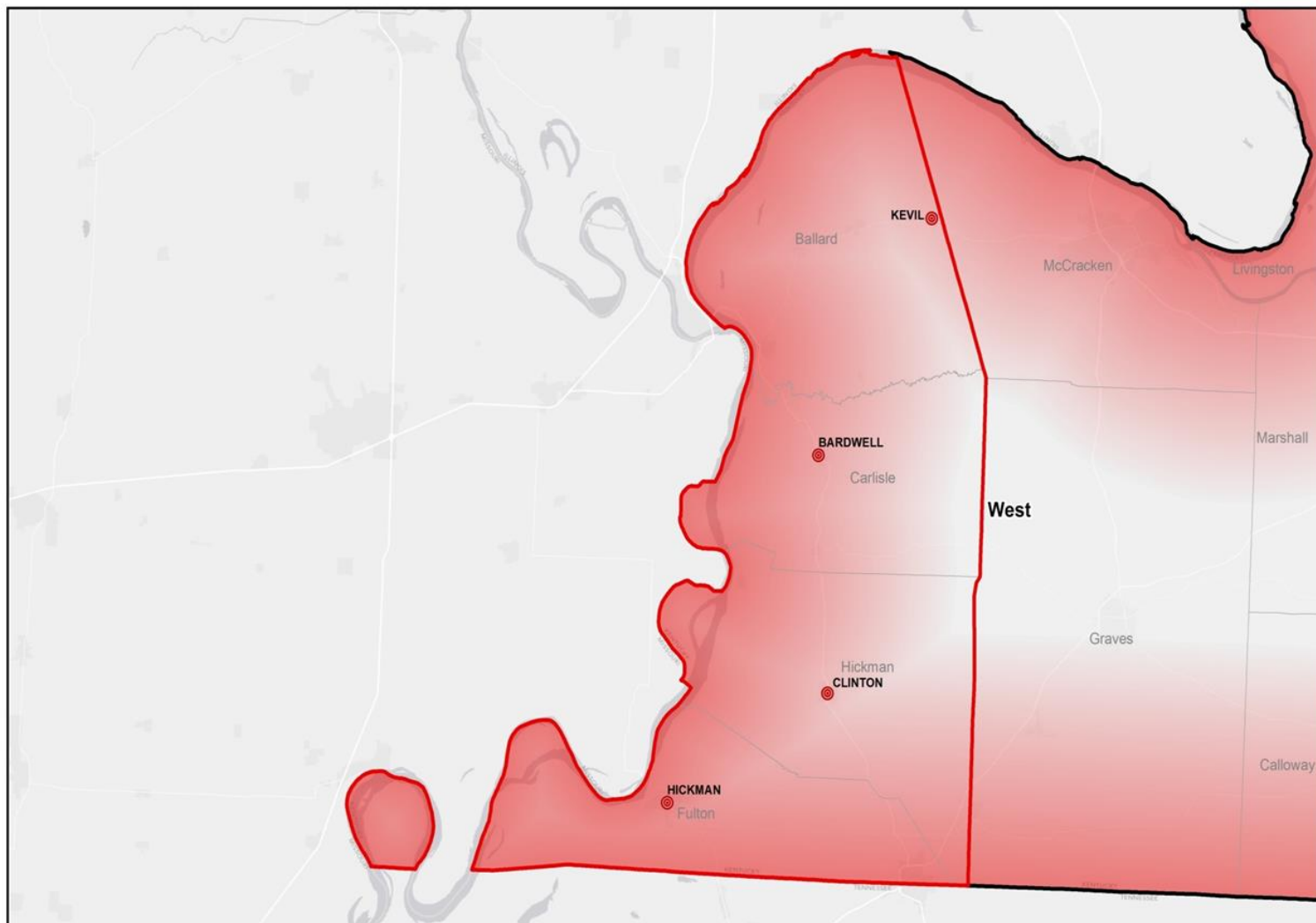
Johnathan Gay, 859-797-5759

or j.gay@moreheadstate.edu



West Region Project Area

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promoting a 21st century economy



MURRAY

STATE UNIVERSITY

Regional Outreach

Western Project Region Community Education Oriented eLearning Centers

**In cooperation with the counties of
Ballard, Carlisle, Hickman, and Fulton**

MSU Leadership Team:

Gina Winchester – Executive Director, Office of Regional Outreach

Jonathan Baskin – Project Coordinator

Michael Ramage – Associate Director, Center for TSM

Legend

Community Anchor Institutions










Category

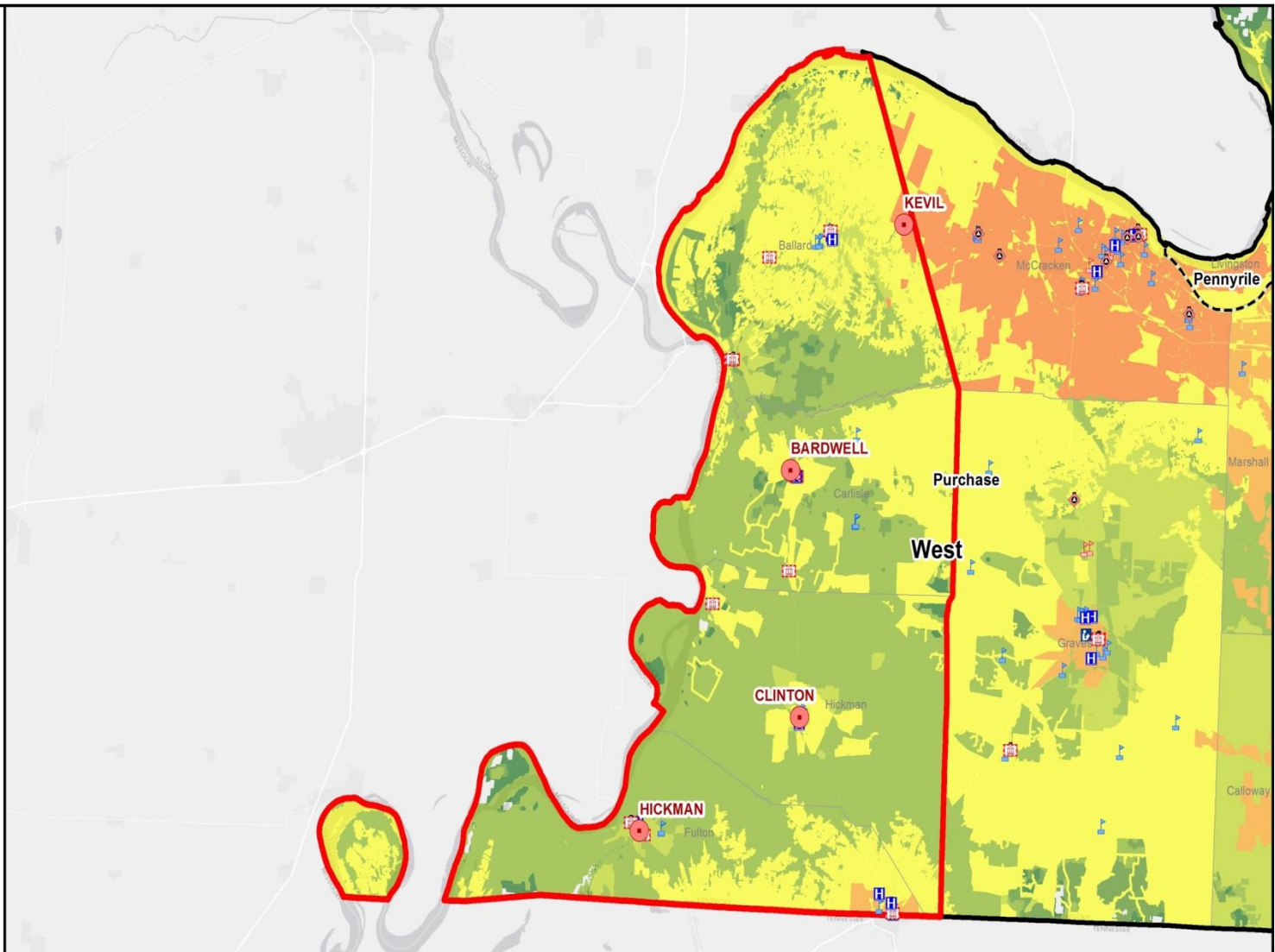
-  Library
-  Medical/healthcare
-  Other community support - government
-  Public safety
-  School - K through 12
-  University, college, other post-secondary

Boundaries

-  Planning Region
-  ADD
-  County
-  West Region Project Area

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-  Greater than or equal to 100 mbps and less than 1 gbps.
-  Greater than or equal to 1 gbps.



Disclaimer: This map and associated information is only as accurate as the source data provided by the broadband service providers participating in this program, and may not be all inclusive of the services provided in a particular area. Furthermore, this map information is updated semi-annually and therefore may not reflect the most current information. Map information is provided on an "As-Is" and "As Available" basis. Neither the OBOD, nor Baker, makes any warranty, representation or guarantee of any kind, express or implied, without limitation, regarding either the accuracy, reliability, timeliness, quality or completeness of mapping or other information provided herein or the sources thereof. Neither the OBOD nor Baker assumes any liability for any errors, omissions, or inaccuracies in the mapping or other information provided herein regardless of the cause of such or any decision made, action taken, or action not taken in reliance upon any maps information provided herein.

Granularity: The broadband service area coverage depicted herein has been aggregated to the granularity of either the census block area, or street centerline segment and buffered, depending upon population densities as determined by the U.S. Census Bureau. Service areas are depicted to the entire census block or buffered street segment even if they service only a portion of the census block or street segment, therefore the coverage may be overstated in some areas. Broadband service area coverage for buffered street centerlines may also extend beyond the buffer area, therefore the coverage may be understated in some areas.

West Region Focus:

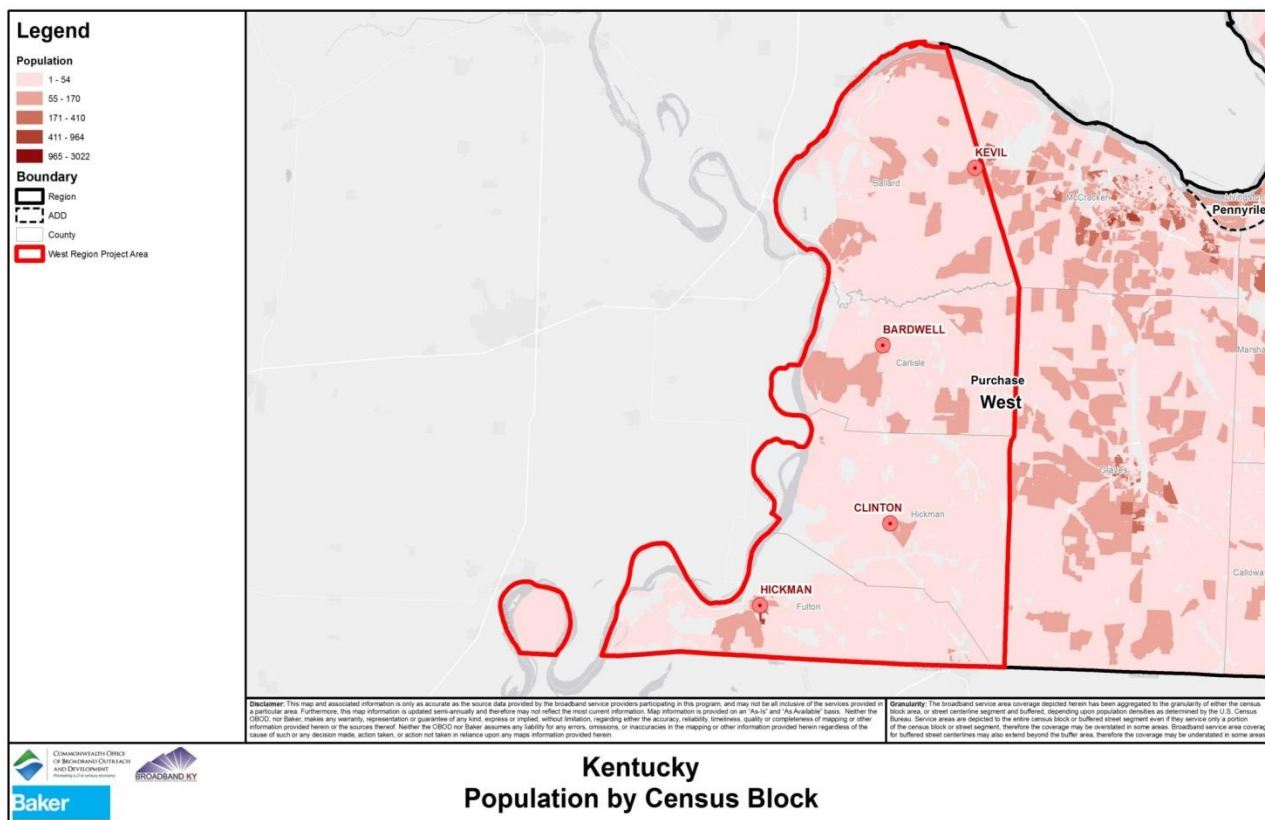
Creating sustainable eLearning Sites in county population centers

- Provide public access to broadband
- Provide education opportunities to improve broadband access & utilization

Target Users:

- Rural residents who have not adopted broadband in their homes, or:
- Have no access due to cost or perceived limited need

Secondary Users: Current broadband users -- to increase utilization



First eLearning Sites:

- **Wickliffe & Kevil**
(Ballard)
- **Bardwell**
(Carlisle)
- **Clinton**
(Hickman)
- **Hickman**
(Fulton)

Kentucky
Population by Census Block

City of Hickman – Fulton Co.

County Population: 6,525

eLearning Center Location:

National Guard Armory
(doubles as county offices)

Key People:

David Gallagher, County Judge
Tom Hodges, Assistant

Room size: 21' x 14'

- This may be the first location to open -- it needs cleaning and computer installation



City of Clinton – Hickman Co.

County Population: 4,754

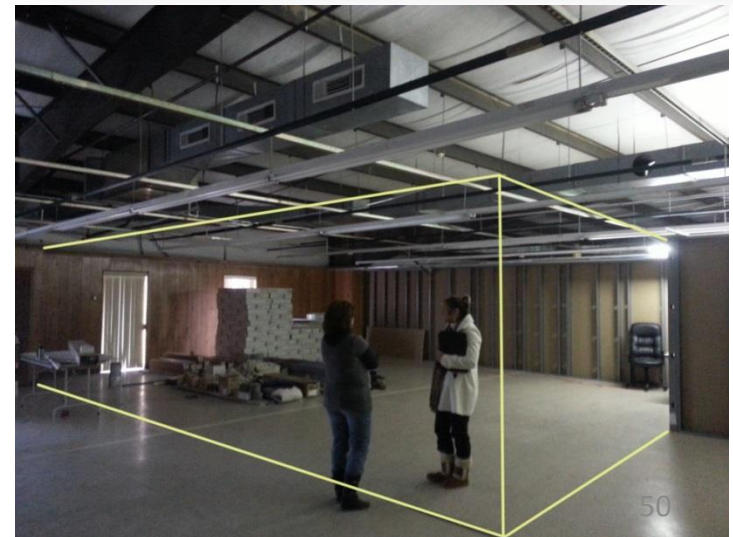
eLearning Center Location:

County Economic Dev. Building
(currently houses Daymar College
and Adult Ed. classrooms)

Key People:

Greg Pruitt, County Judge
Longena Cunningham, Daymar

- Proposed room to be built in existing facility. County is willing to work with our team. Completed room size: 33' x 26'
- This facility take longer to open, but will be the largest.



City of Bardwell – Carlisle Co.

County Population: 5,234

eLearning Center Location:

UK Coop. Ext. Office

Key People:

Sara Bogle Martin, UK Coop. Agent

- Currently computer lab measures 9' x 16'. Location may be used with laptops for specific programs instead of general use.
- There is also a church in the area being converted into a library -- could possibly house an eLearning center. This is being researched.



Wickliffe & Kevil – Ballard Co.

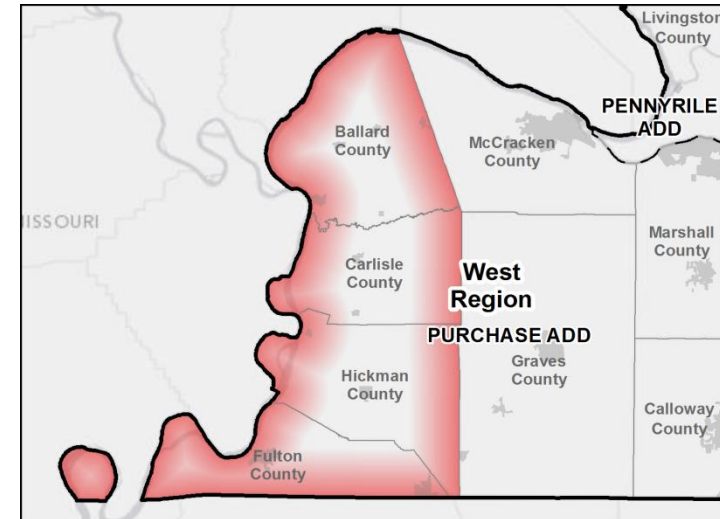
County Population: 8,333

eLearning Center Locations:

- *Library in Wickliffe
- *Industrial Center in Kevil

Key People:

Vickie Viniard, County Judge



- The County has a UK Coop. Ext. Office that could be used for education, but not as a permanent location.
- Rural population dispersion and lack of large facilities in the county have impacted the selection of permanent site locations.
 - ❖ One site will be the public library in Wickliffe -- currently open a few days each week. Paid staff for the eLearning center would allow the library to stay open more.
 - ❖ A second site may be a building in the Kevil industrial/technology park. Site visits are planned for each location to determine feasibility.



Project Summary:

- **Improved community access and utilization to broadband:**
 - ✓ Promotes uses & usage
 - ✓ Generates demand
- **Improvement and expansion of business utilization of broadband will enable Kentucky enterprises to:**
 - ✓ Grow and expand
 - ✓ Compete globally
- **Improved government and institutional utilization :**
 - ✓ Expands citizen access to government services
 - ✓ Improves efficiency
 - ✓ Helps to drive overall broadband demand

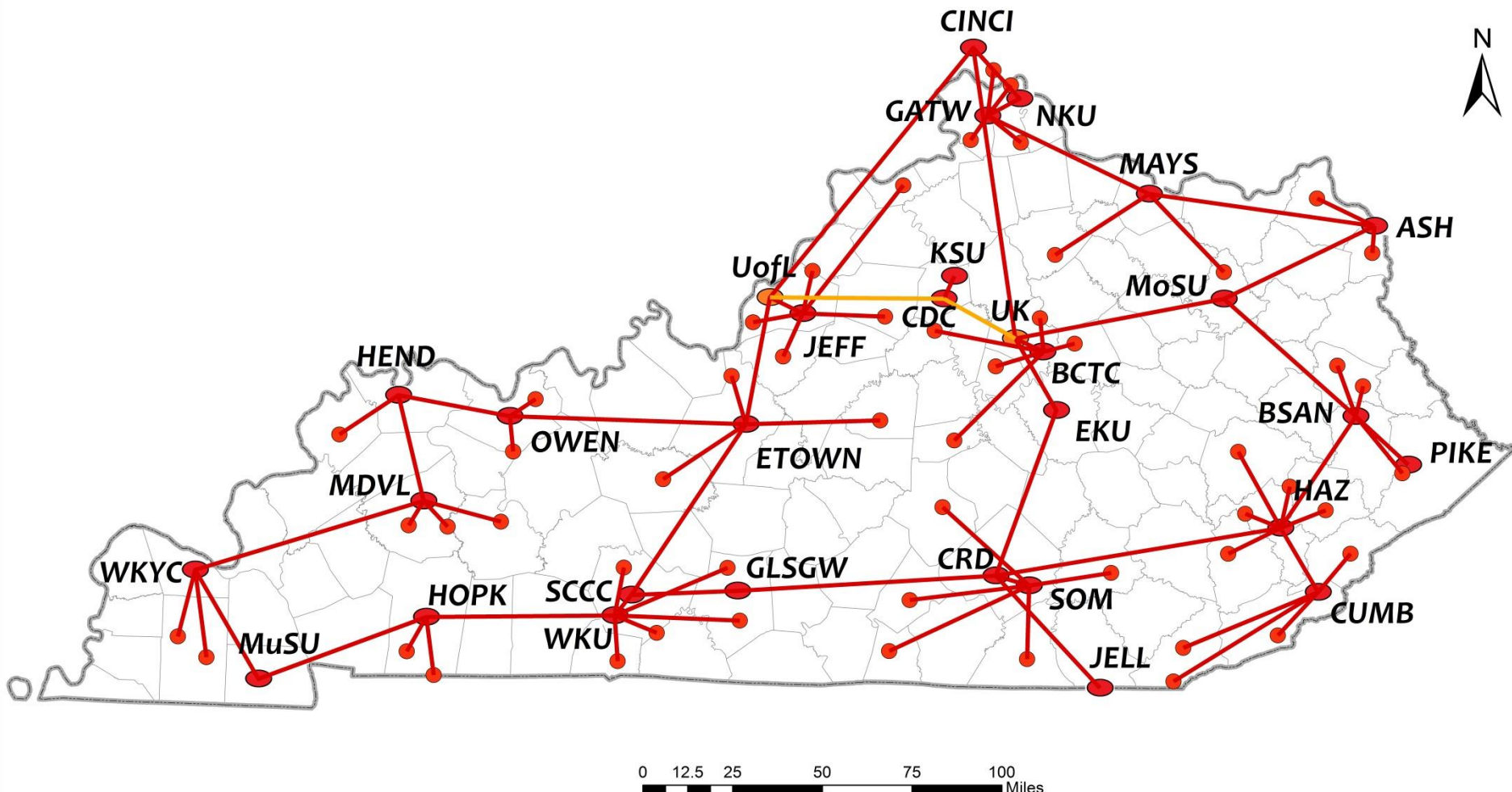


The Commonwealth Dark Fiber Project

- Overview of the Governor's Vision
- Q & A



Next Generation Kentucky Information Highway





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Questions

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Kentucky.gov

KY Agencies | KY Services

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Broadband KY



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Promoting a 21st century economy

The BROADBAND KY Initiative

In today's world, digital communications are as important as highways and bridges. Kentucky's citizens and businesses travel digitally for work, education, and entertainment as well as to conduct business. The goal of the Office of Broadband Outreach and Development is to ensure that broadband services are available, from border to border, to our citizens and businesses.

The Commonwealth has received more than \$5.3 million in grants for broadband mapping and outreach programs, including Broadband KY, from the federal American Recovery and Reinvestment Act (ARRA), State Broadband Data and Development (SBDD) grant program.



The displayed providers offer service in the general area of the location provided, but may not serve every address in the area. There may also be additional providers that do not appear in the list.

Broadband Map Click the image above to see a map of broadband availability in Kentucky

Slow computer? Use this simplified search to find broadband service providers in your area

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Don't have broadband service in your area?
Click here for more information about the Federal Communications Commission guidelines for obtaining broadband in your area





Information available online:

- **Kentucky's Broadband Mapping Initiative**
<http://www.broadband.ky.gov>
- **Kentucky's Broadband Mapping Viewer**
<http://www.bakerbb.com/kybroadbandmapping/>
- **Kentucky @ Work Broadband Page**
<http://kentuckyatwork.ky.gov/Pages/Broadband.aspx>
- **The US Broadband Plan**
<http://www.broadband.gov/>
- **The US Broadband Map** *(and Data Sets)*
<http://broadbandmap.gov/>
- **Our Facebook Page**
<http://www.facebook.com/KentuckyBroadband>

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Broadband in Kentucky and peer states

Broadband supports economic development, social services, education, and other factors that are foundations to community vitality. Quality internet connections are critical to success in today's online world. This graphic outlines major benefits and considerations relating to KY broadband.

Why is rural broadband critical?



**89% of home
based
business cite
broadband
essential**

**85% of
households with
school age
children
use it for
research**

**59% of busi-
nesses cited broad-
band as
essential
remaining in**

**47% of Kentucky
survey participants**

**Broadband was
considered essential
for location**



COMMONWEALTH OFFICE
OF BROADBAND OUTREACH
AND DEVELOPMENT
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KTA Presentation

Baker